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JANUARY 1962

Vol. 30, No. 1

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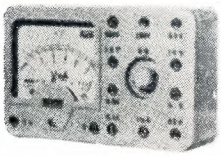

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JANUARY 1962
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OUR COVER

A new layout and a typical photo of Amateur Radio!

Happy New Year to all from the Publications Committee.

COMMENT

★

THE NEW YEAR—1962

This is the month of January and another year dawns; a year in which we will look forward to an increased interest in Amateur Radio. 1962 and the sunspot cycle promises unattractive conditions generally on the higher frequency bands, but improving conditions on the lower frequency bands. 1962, with a growing interest in s.s.b. transmissions from all over the globe, pointing up the future trend for Amateurs in order to accommodate the growing population of the Amateur Service. 1962, the year of the British Empire Games to be held in Perth, Western Australia, and the year the Wireless Institute of Australia will hold its first Federal Convention for three years.

Yes, there is something about a New Year which makes all of us look forward to the ensuing months of the year to come with a hope of achieving something. In the field of Amateur Radio there are many things to achieve—new antennae, new rigs, that first try at a simple s.s.b. outfit, the mobile equipment, the emergency equipment, new audio gear to perhaps serve as the family high fidelity set-up as well as a modulator; one or some of these things, and many other cherished hopes, come to mind at the commencement of another year.

At Headquarters there are many things to be done, too, the most urgent being the organisation for the forthcoming Federal Convention in Perth next Easter. It is proposed to design and produce a new handsome Membership Certificate that everyone should feel proud to display on the wall of his shack. A new certificate to replace the old National Field Day Certificate is on the drawing board. The new Remembrance Day Contest Certificate will be available.

The new "Handbook for the Guidance of Operators of Wireless Stations in the Amateur Service" will be printed by the Postmaster-General's Department and available to members complete with a number of amendments and deletions designed to simplify the interpretation of regulations. This book is not the law, but it is means by which we can regulate the sensible operation of our own stations in our limited frequency space. Take time off to brush up on the contents of this Handbook once every year.

And finally, on the DX bands remember you are virtually an ambassador for Australia. Your operating procedure, technique and manners are as important as the appearance and operation of your equipment—both should be good. Every signal that goes out of Australia should carry that "Goodwill Unto Man" which so characterises Amateur Radio all over the world.

Hearty Seasonal Greetings for the New Year to Amateurs wherever they may be situated from the gang at Headquarters.

FEDERAL EXECUTIVE, W.I.A.

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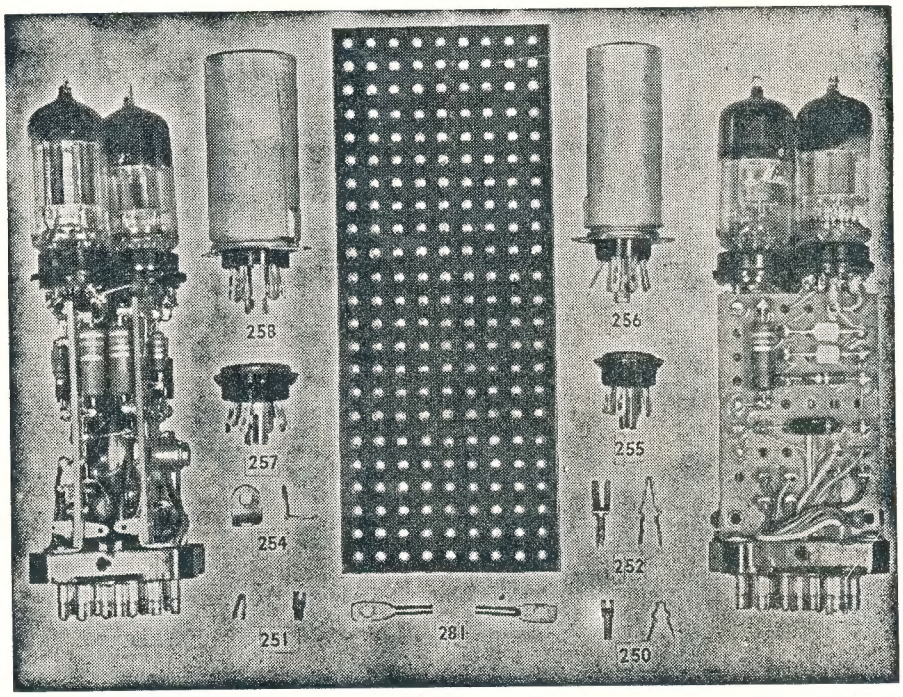

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MOBILE WHIP—WITH FERRAMIC CORE

CLEM J. MALOOF, VK2AMA*

NOW that spring is here and a young man's fancy turns to 40 metre mobileering, here is a short discussion on, and a design for, a more highly efficient, strong and durable "firing-stick" easily assembled from available items and which will even radiate the OM's pride and joy in having his own mobile gear at last.

It has a novel design in that the loading coil has a ferramic core which markedly reduces losses, increases Q and selectivity, and hence efficiency of radiation.

Without entering into a lot of antenna theory, which is readily available elsewhere, certain principles manifest themselves and it is there we shall discuss in non technical terms.

Fundamentally a shortened resonant whip may be considered as in Fig. 1 The inductance and capacitance of course cancel each other as in any resonant circuit.

Now for a given circulating r.f. current, the most power will be dissipated in the resistance of highest value, all resistances being in series except R-base. This will shunt the whole radiating system but poses no problem since even the poorest of insulators will have an impedance of many times the R-total of 30 ohms approx.

From this our prime objective is to make R-rad. as large as possible with respect to the R-total of the system, for the power developed here is the effective radiated power. The power developed in all the other positions is simply converted to heat and wasted.

Radiation resistance can be increased in two practical ways:

(1) To make the overall size of the antenna as long as possible;

(2) To raise the loading coil as high above the feed point as efficiency allows. (The coil cannot be raised right to the top because its losses mount alarmingly as it is necessary to add more turns to maintain resonance.)

We can also tackle the problem by reducing as much as practicable all other resistances. Let us consider them individually, starting from the feed point.

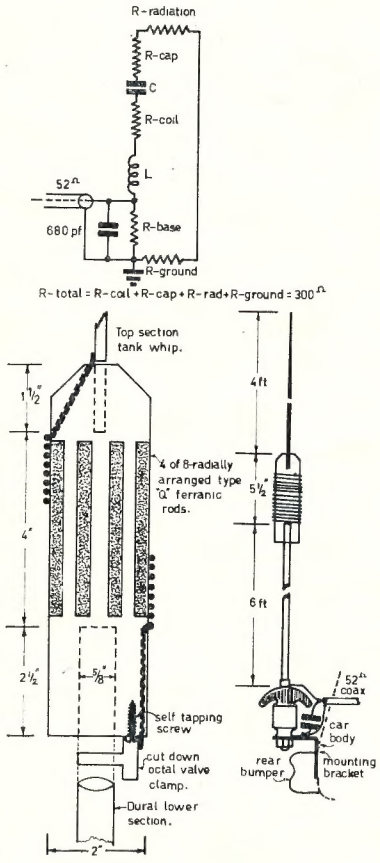
R-coil depends on the number of turns and the resistivity of the conductor. The ratio of reactance to resistance must be high, i.e. high Q. As an example, an air-wound coil of high Q in the vicinity of 300 has a resistance of the order of 6 ohms at the centre of the whip. Using 2" diam. coil dimensions, this would amount to about 45 turns at the centre and considerably more at the higher position of our loading coil, together with a corresponding increase in resistance. Here is where the ferramic takes over and reduces turns to 19, having resistance of the order of 2½ to 3 ohms, neglecting the small losses within the core itself. (N.B. Be careful to use the correct Q1 type ferramic.)

* 54 Meeks Street, Kingsford, N.S.W.

This saving in coil losses allows the higher position of the loading coil, thus increasing the radiation resistance over the usual centre loaded whip and raising the circulating r.f. current point higher above ground. (It has been shown that high r.f. current points radiate more than lower current points.)

R-capacitor is very small since the antenna is air-spaced from the chassis and therefore may be neglected.

R-ground includes the electrical resistance of large parts of the car body to each other and in particular to the connection of the feedline braid to chassis. The magnitude of this resistance is vague but one authority quotes



as much as 12 ohms at 4 megs. Having in mind the total input resistance of our antenna is of the order of 30 ohms, this is very significant. This loss must be reduced by:

(1) Earthing feedline braid as close to whip base as possible, taking care to use large areas of contact and ensuring that paint, rust and foreign bodies are completely removed, giving good metal to metal contact. Here also avoid metals which may corrode in contact with each other, e.g. brass and aluminium.

(2) Bonding doubtful sections of the car body to feed-line braid and to each other.

Finally, to complete the discussion, there is a very simple method for matching the 52 ohm co-ax line to the 30 ohm input impedance of the loaded whip almost perfectly. This is to shunt the termination of the line with a 680 pF. mica capacitor. The advantage here is not to simply reduce s.w.r. losses which are so minor that they don't matter, but to simplify coupling line to final p.a. and to avoid retuning every time the v.f.o. is shifted.

Indeed, for the mobileer on 40 metres only, there is much to be said in using the simple "old fashioned" link coupling which requires no band switching or any other controls, compared to our modern multi-controlled pi-coupler finals.

In summary, the efficiency of mobile whips for 40 metres is very very low, no matter which way we look at it. Therefore even the slightest improvement will give enormously more r.f. radiation than say the peaking up of a half wave doublet which is extremely efficient to start with.

CONSTRUCTION OF WHIP

The whip to be described is conveniently made in two sections for easy storage and quick assembly, taking less than five seconds. It is mechanically rigid, yet elastic enough to accommodate road shocks and its streamlined appearance will blend into any vehicle's contour. One section consists of tank whip and loading coil as an integral unit, the other section being simply the 6 ft. of ⅝" dural forming the main radiator.

For the construction you will need:

6 ft. of ⅝" heavy gauge dural tubing,
4 ft. top section of tank whip,
8" of 2" diam. polystyrene rod,
4 x 8" type Q1 ferramic rods,
1 pt. Ethylene Dichloride.
1 octal valve clamp (surplus). This has a lever action and an adjustable tension screw. As orginally used it is bolted to chassis at one point and by flicking the lever, the octal valve is locked in or released.
Aerial base (any surplus). This has a long ground spike and the insulation is of ebonite solidly encased in brass. It seats perfectly the ⅝" dural tubing and mine cost only ½ db.
10 ft. of 12 gauge tinned copper wire.

The task requiring most ingenuity is to machine the poly. rod as indicated. This was done using a lathe for turning the end sockets and a vertical drill and jig to mill out the slots for the rods. These ferramic rods are filed in the centre and gently snapped in half. Each half is then radially countersunk into the poly. rod and secured with poly. cement applied in layers. This job takes about two days since each layer must dry before the next is applied. The poly. cement is made by dissolving

(Continued on Page 9)

GETTING TO KNOW THE OSCILLOSCOPE

PART TWO

J. L. K. MATCHETT, B.A., B.Sc., B.Ed., VK3TL*

Obviously the demonstration model described will need a high voltage power supply. A glance at c.r. tube characteristics will show that the A2 voltages are not uncommonly 2,000. However, it is possible to illustrate electron beam deflection with voltages as low as 350 using many common c.r. tubes. Such a power supply may be easily constructed by the teacher, or, for the sum of about ten shillings, an old radio receiver may be bought and this will provide the power needed. In order to help you trace the wiring of the power supply of a radio receiver, or construct one of your own, a circuit is given (Fig. 5). T is the power transformer. The primary is connected to 230 or 240 v.a.c. of the mains supply. Employ an earth lead and solder it by means of a lug to the chassis. The bottom of a power transformer may look like as shown in Fig. 6.

Usually the wires of the transformer are brought out to solder lugs, but occasionally they are not marked. To identify each one, it is necessary to use an ohmmeter or multimeter; the thickest wires will be the filament leads. Always test for resistance before connecting any leads to the a.c. mains in order to get some idea of turns ratio and therefore voltage output of the windings. An ordinary torch globe will act as a fuse and save both transformer windings and rectifier plates just in case there is a short across the output. The valve is any common rectifier, e.g. 80, 5Y3, 5V4, 5R4, 5Z3, 5U4 (all of these require five volts across their filaments), but some modern ones, e.g. 6X4, 6X5, 6V4 require 6.3 volts. In all cases make certain that the valve filament winding is quite a separate one from that of the c.r. tube filament.

Ch = filter choke. Due to its high inductance it provides impedance to a.c. at 50 c.p.s., and so brings about some smoothing of ripple. In modern radio sets, this is a separate component (usually 8 henries at a 50 mA. rating), but in old radio sets you will see, if you trace the wiring, that the choke is a part of the dynamic speaker. In fact it provides the field for the speaker. (Modern speakers are of the permagnetic type and thus need no field coil.)

C1, C2 = electrolytic capacitors, usually about 8 μF. or 16 μF. With old sets you may find they take the form of aluminium cans. Pull any old capacitors (or condensers as they used to be called) out and replace with good modern ones of 600v. rating. Obviously, since they depend for their action upon electrolysis, their correct polarity must be observed. The red end is connected to the choke, i.e. positive side, and the metal end firmly soldered by means of tinned copper wire to ground, i.e. chassis.

So that the capacitors may discharge after the power pack is shut off, they may be made to discharge through a large value resistor (about 30,000 to 50,000 ohms), placed across the h.t. output. Its wattage rating will, of course, depend upon the p.d. across it, but a usual value is 5 watts. Such a bleeder resistor has a safety function, but it also provides a little voltage regulation. The power pack will, with condenser input filtering as shown in Fig. 5, give about 400 to 430 volts d.c. output. Owing to the very small current drawn from it by the c.r.o., the actual voltage under load will not be much lower than this. In most cases this will be adequate for the requirements of the teacher but there are many other ways of obtaining higher voltages if needed.*

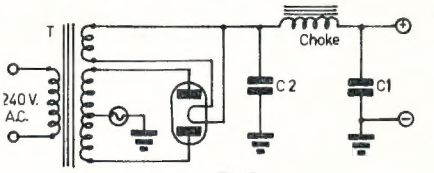


Fig. 5.

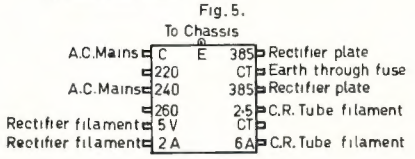


Fig. 6.

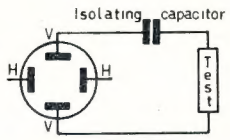


Fig. 7.

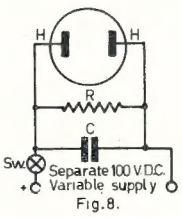


Fig. 8.

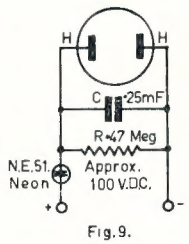


Fig. 9.

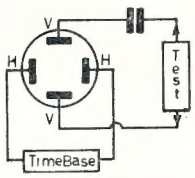


Fig. 10.

The next step in the demonstration is to show the c.r.o. in action. Apply an alternating voltage to the vertical plates through an isolating capacitor, leaving all other connections in place. Such a capacitor should have 600v. or better still, a 1,000v. rating; it will normally be of the paper type. This serves to isolate any d.c. of the c.r.o. from the test. Three sources of a.c. which show up well on the screen are a P.M.G. bell generator (available cheaply at disposals), a power transformer (in this case the a.c. voltages applied may be compared by measuring the vertical displacement of the the electron beam), and the output of an audio oscillator. One of the great advantages of using a low voltage power supply is that one requires a much lower test voltage to cause deflection of beam across the screen.

The teacher may now go on to provide his c.r.o. with a horizontal sweep. That is, he will cause the electron beam to sweep across the screen. This introduces one of the finest practical applications of the capacitor. Set up the circuit as shown in Fig. 8.

A note on the d.c. adjustable power supply is given in the Appendix. With no test voltage across the vertical plates, close the switch. The capacitor charges up and the beam is sent across the screen in one direction which depends upon the connection to the d.c. supply. When the switch is released, it will discharge through the large resistor and so the beam is brought back to its starting point but at a slower rate.

Now add one or more capacitors of total capacitance about 6 μF. (oil filled capacitors of good voltage rating are available from disposals). Repeat the experiment. Note how the time constant of the C-R system has increased and the beam will return very slowly across the screen. By rapid making and breaking of the switch, the beam will be observed to form a straight line across the screen. You have made a simple horizontal sweep which will lead to much discussion on behalf of the pupils.

Taking the c.r.o. a little further, we can make a continuous horizontal sweep or time base. All we need to do is to replace the switch in Fig. 8 with a neon lamp (see Fig. 9). The NE51 is fairly readily available, but try to obtain its special socket when you buy the lamp. (Price of both is about 4/-.)

All neons have the property of "striking", i.e. conducting when a certain voltage across them is reached. They continue to conduct even when the p.d. across them has fallen below their striking voltage until the extinguishing voltage is reached. In this circuit the lamp strikes as the capacitor builds up, but fails when the latter discharges through the resistor. By carefully adjusting the d.c. voltage, the lamp may be set flashing. (If the voltage is too high the lamp will remain alight all the time.) The frequency of the lamp flashes is dependent upon the lamp characteristics as well as the values of the capacitor and resistor, but each time it is seen to flash, the beam will be swept forward and then backwards across the c.r. tube screen. Remember that the adjustable power supply mentioned is one in addition to the power supply delivering h.t. to the deflecting plates through the cables.

Thus provided with a time base, we may return to examine our test voltage. Apply the latter as usual to the vertical

* Space does not permit full accounts of other methods, but these are available in most electronic handbooks. Amongst the most popular are the r.f. (radio frequency) power supply which gives very high voltages and is safe, and the practice of connecting power transformers in series. (Make sure that all components are insulated for about 1,000v. and that your electrolytics are rated appropriately.) Exercise the greatest of care with all power supplies.

plates and the time base to the horizontal plates (see Fig. 10).

Provided that the frequency of the "test" is not too great compared with that of our T-B, a series of wave forms may be observed. The wave forms will not be pure for a reason to be explained later. This wave formation may be compared with a person drawing a line vertically on a wall (test voltage) whilst walking along horizontally (time base). Obviously a wave pattern will be seen on the wall.

The above description will probably suffice to show pupils some of the practical aspects of the physics that they learn, and will not be beyond the demonstration powers of most teachers at this level of instruction. The following notes are brief and are accompanied by semi-diagrammatic sketches which will serve to complete the description of the c.r.o.

In many c.r.o's. a "soft" or gas-filled valve has a function of a relaxation oscillator. A simple one for the home constructor is the EN31 or the 884 triode. Its function is similar to that of the neon tube, the gas in it ionizing and so conducting when a certain voltage across it is reached.

Note how the value of the capacitor in the circuit (Fig. 11) may be altered by switching. This forms the "coarse frequency" adjustment in the front panel of the c.r.o., the frequency of the T/B being changed for the various frequencies of the test under investigation. Note too, that the resistor across the switched-in capacitor is made variable and so provides the c.r.o. with its "fine frequency" adjustment.

Unfortunately in the circuit of Fig. 11 there is no guarantee that each sweep of the T/B will occur at exactly the same part of the cycle of input current under investigation, and so it will not be surprising to see a series of wave patterns overlapping each other on the screen. To prevent this, we must feed back a little of the test current to the grid of our T/B oscillator. The frequency of the T/B being approximately a sub-multiple of the test, it will be "locked" to it.

The control in Fig. 12 will be the "synchronisation adjustment" ("synch" as it is called) in front of the c.r.o. The block diagram of the c.r.o. will now look as shown in Fig. 13.

Amplifiers (which must be very carefully designed so that there will be no loss of gain at higher frequencies) are used both for the vertical and horizontal plates, so that very small input voltages may be examined. The general scheme of such an amplifier is shown in Fig. 14.

It is not a difficult task to adapt an ordinary r.f. amplifier from a disused radio for this purpose. The theory is only one step from the theory of a triode once the function of the two new electrodes and the meaning of dropping resistor are pointed out.

Better quality c.r.o's. as well as having good amplifiers, possess the property of suppressed fly-back. By applying a voltage of certain phase from the plate of the sweep generator to the intensity grid of the c.r. tube, the return trace of the electron beam to its starting point may be blanked out and only the wave form trace observed. After all these improvements, the schematic diagram of the c.r.o. may appear as shown in Fig. 15.

The front panel of the c.r.o. and its connections may look something like that shown in Fig. 16. All the controls shown with an arrow are adjustable; the shaded ones are insulated terminals.

Intensity.—If you use low voltages you will find that this intensity or brilliance control will need to be turned full up.

Focus.—If the beam is fully out of focus, you may be able to see on some c.r. tubes the shadow of one or more of the deflecting plates upon the screen. Thus the plates may take the place of the conventional Maltese Cross of the Crookes tube. If you wish to demonstrate the movement of a "spot" on the screen do not allow it to remain on the screen for a long period in any one position or else it may "burn" the screen. De-focus the beam and then re-focus when ready.

X Shift.—Used to alter the position of the spot or wave pattern in a horizontal direction. Illustrates electrostatic deflection.

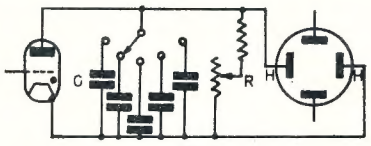


FIG.11.

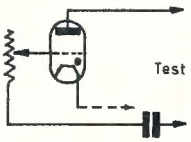


FIG.12.

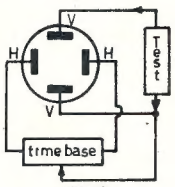


FIG.13.

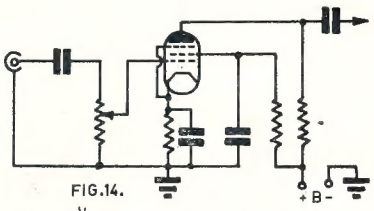


FIG.14.

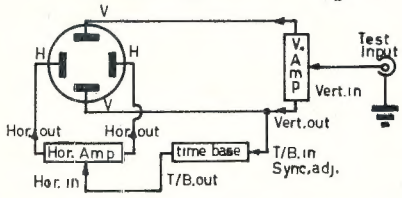


FIG.15.

One of the vertical and horizontal amplifier output terminals is usually earthed except in the case where push-pull amplification is used.

Y Shift.—Used to alter the position of the spot or wave pattern in a vertical direction.

Coarse Freq. and **Fine Freq.**—Used to bring about a suitable wave pattern upon the screen. Adjustment will depend upon the frequency of the test.

Synch. Adj. — The synchronisation adjustment. This control brings about a stationary pattern on the screen.

E = earth. In the simplest of c.r.o's. this will also be one of the leads to the vertical amplifier, and so one of the leads from the "test" will be connected to it.

V. In.—Vertical amplifier input. This is the remaining terminal to which the "test" is connected.

Vert. Amp.—This is the gain control of the vertical amplifier. Just connecting the test to the E and the V. In. terminals will result in a vertical line being shown on the screen whose height may be controlled by the vertical amplifier gain control. If the test is a d.c. source then the line will only show up momentarily owing to the presence of the blocking capacitor, unless there is provision made to connect the test directly to the c.r.t. plates.

V. Out.—Vertical amplifier output. In the simplest c.r.o. the other output terminal will be earth.

T/B In.—Time base input. Normally a time-base will be used and so the output of the vertical amplifier must be connected by means of a "jumper" (usually a piece of copper wire) to the T/B input terminal. This is shown in Fig. 16.

T/B Out.—The time base output. Where the T/B is used, its output is amplified and so the latter is connected to the **H. In.**

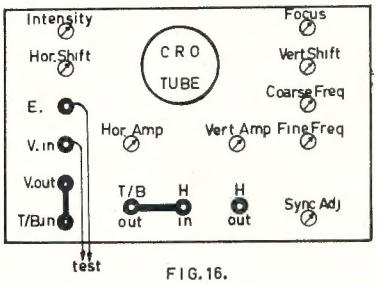


FIG.16.

H. In.—Horizontal amplifier input terminal. The jumper used is also shown in Fig. 16.

H. Out.—Horizontal amplifier output. Behind the front panel this terminal is connected to one of the horizontal plates of the c.r.o.

Hor. Amp.—The horizontal amplifier gain control. With no test connected to the c.r.o., the length of the horizontal sweep across the c.r. screen will be made greater with this gain control.

With such an arrangement of terminals on the front panel, the amplifiers may be used independently of the c.r. tube and also other time bases or the ordinary 50 c.p.s. household current may be used as an "external" horizontal sweep. Another advantage is that the T/B may be disconnected from the amplifiers and sources of alternating current connected to the two sets of amplifiers to give Lissajous Figures. A separate article would be necessary to give some of the other uses that could be made of this wonderful instrument—the cathode ray oscilloscope.

We have followed through the development of the c.r.o. from elementary principles and some of these principles have been demonstrated. The thing to remember is that any complicated electronic device may be split up into sections which conveniently lend themselves to study. My advice to prospective constructors is to start off with the simplest of circuits and add to them. Most teachers of science at the matriculation standard are capable of building their own equipment; the only difficulties seem to be the matter of time and

(Continued on Page 9)

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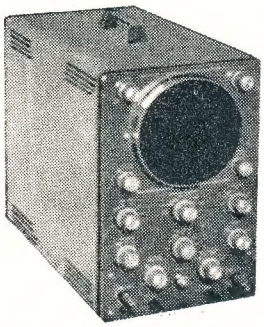

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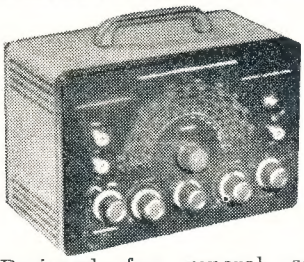

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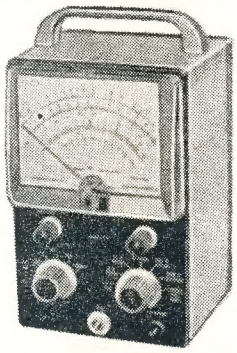

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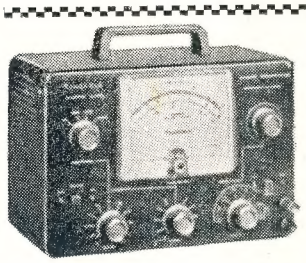

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HINTS AND KINKS

MODIFICATION TO No. 122 SET

It is a very simple task to modify the ever-popular No. 122 Set to allow independent tuning of the receiver while maintaining the same carrier frequency.

This is done by disconnecting the v.f.o. section of the tuning gang and replacing it with the netting trimmer which now becomes v.f.o. control.

To have optimum bandspread, the capacity of the netting trimmer C26A must be increased from maximum of 11 pF. to 50 pF., which allows complete coverage of 40 and 80 metres. The altered v.f.o. circuitry is now resonated on to the Amateur bands by adjusting fixed capacity across C26A. This can be conveniently made up of trimmers C29A and C29B connected in parallel.

Should the transceiver be required to transmit outside Amateur frequencies, as in an emergency, it is a simple task to add a single throw double pole toggle switch in the crash level position which disconnects the shunt capacity across C26A and re-connects the original v.f.o. tuning gang, thus re-establishing locked rx and v.f.o. tuning.

Incidentally, mechanical stability of the v.f.o. is greatly improved by this manoeuvre, which should interest those intending to mobileer. Further mechanical bandspread may be obtained by mounting a small planetry drive on C26A.

—Clem Maloof, VK2AMA.

SPLATTER!

This form of interference is probably the most common one and probably the most exasperating, for we manufacture it in our own various ways and are often most offended and incredulous when some sufferer, who can no longer tolerate it, brings it to notice!

There is no need to delve into the theory regarding splatter here, for it has already been amply covered in various articles in other publications, and specific reference is made to "CQ," Jan. '59, p. 46, in this regard. The title is "Negative Cycle Loading" and describes symptoms and treatment, the latter being comparatively simple.

For those unable to obtain that article for perusal, a brief summary of the circuit is shown herewith.

Two types of rectifiers are shown, A being a vacuum type and B silicon diodes in series. Either one can be used.

The resistor R shall have a value of half the impedance of the Class C stage and power rating of one-fourth the input.

The diode can be any rectifier which has sufficient current and inverse voltage rating.

A simple approach is to put some silicon rectifiers in series with the resistor, across the modulation transformer secondary, saving weight, space and heat.

From personal experience "N.C.L." can be very strongly recommended for use in all a.m. transmitters, so why not do the modification **now** and avoid needless interference to others using the band?

—Jim Herd, VK3JK.

A CLOCK FOR THE SHACK

A handy electric clock can be made by modifying the face of the small clock from a clock radio. I used a piece of grey laminex 8" x 8" on which was placed a paper template of a clock face 7" in diameter. The minute impressions in the laminex were made by several turns of a small drill, and the hour positions by a large one. The template was then removed, the minute impressions filled with black, and the hour with red enamel.

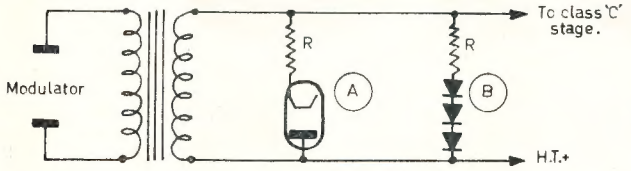
The hands were removed from the clock and the movement mounted on the rear of the laminex, the centre spindle for the hands passing through a hole (to size) in the centre.

The small hands were extended by soldering a piece of 16 gauge copper wire on each to the required size to suit the face. On the sweep hand, a piece of 1/029 was used

Numbers of a suitable size were cut from a calendar and fixed in position. An outside cover made, and another piece of useful equipment for the shack.

The controls for use with a radio, which protrude, have to be removed to allow for the longer hand movement, also the alarm at the rear which can easily be cut away.

—C. Aberneathy, WIA-L2211



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ATTENTION BLIND AMATEURS

At the recent Victorian State Convention of the W.I.A. the matter of aid to blind Amateurs was brought up by Cyril Minns, VK3AM. It was proposed by Ken VK3TL that an ad hoc committee be formed to investigate the ways in which other Amateurs may help their blind friends.

After talking over this matter with Cyril, himself a blind Amateur, and having obtained some experience in recording for him, it was felt that the following points should be brought out before any nation-wide or state-wide tape exchange and recording network be set up.

Firstly, the number of blind Amateurs and their location in Australia must be established. Would those Amateurs please send in the following details: Name of Blind Amateur, Call Sign, Postal Address, Make and Model of Tape Recorder available (if any), Speed (or speeds) of machine, details of tracks.

Please forward this information as soon as possible to Ken Matchett, 69 Atkinson Street, Templestowe, Victoria. Would the readers of this article do all they can to bring this to the notice of those concerned? We know you'll help if you are able.

☆

1962 A.R.R.L. INTERNATIONAL DX COMPETITION

All Amateur Radio operators throughout the world are invited to participate in the 28th A.R.R.L. International DX Competition. You may earn a certificate of performance award issued to the top Phone and C.w. scorer in each country. In addition, you might QSO new States for the W.A.S. award, or Canadian Provinces for the W.A.V.E. award.

This 1962 DX Contest will be held over two week-ends for c.w. and two week-ends for phone, as follows:

PHONE—February 2-4 and March 2-4.
CW—February 16-18 and March 16-18.

The starting time in each instance is 2400 GMT Friday and ends 2400 GMT Sunday. Phone and c.w. are separate contests.

Object: The rules are unchanged from last year. Try to QSO as many W-K-VE-VO-KH6-KL7 stations as possible during the contest in as many different call areas possible **per band.**

Exchanges: DX stations send RS or RST report followed by a three-digit number representing power input. For example, on c.w. you might send 579050, which means RST 579 and power input 50 watts. U.S.A.-Canada stations will send you a number consisting of RS or RST report followed by the name of their State or Province.

Scoring: Repeat QSOs on additional bands are permitted. Your multiplier is the total call areas (not states) QSOed on each band (maximum of 21 **per band**). Each completed QSO counts three (3) points. Incomplete contacts count two (2) points. **Final score** is the number of QSO-points times the multiplier.

Free log forms are available on request from A.R.R.L. You don't have to use these forms. Logs should contain calls, dates, times, bands, exchanges, and points. Send your log with summary data to A.R.R.L. DX Contest, 38 Lasalle Rd., West Hartford 7, Conn., U.S.A. Your entry must be postmarked by April 28, 1962, to be eligible.

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MOBILE WHIP—WITH FERRAMIC CORE

(Continued from Page 3)

poly. shavings in the solvent and adjusting to a suitably thick consistency.

When the slots are sealed up and the ferramic rods are snuggly tucked away, the valve clamp is cut down to fit the ⅝" dural and finally secured to the bottom of the poly. rod with a ¾" self tapping screw, providing a low resistance and efficient clamp to hold it rigidly in place.

The aerial base is mounted on an angle bracket simply by cutting off all of its stem excepting 2" which then has a thread turned on to it and which may be bolted in place firmly.

The lowest 1½" of the tank whip is now roughened with a file, moistened with poly. cement and thrust firmly into the top of the poly. rod where it is allowed to set hard for two hours.

All is now set for winding the inductance. At each of its ends a tunnel is drilled through the poly. to the positions of attachment by soldering. (Drilling poly. must be taken slowly since heating may cause melting. If this occurs the bit must be withdrawn and scraped with a keen knife.) The top of the coil is soldered to bottom of tank whip, while bottom of coil goes to the clamp.

ADJUSTING THE WHIP

The complete whip is now assembled on the vehicle and is tuned by adjusting the bottom turn of the coil. This is best performed using a g.d.o. and an accurately calibrated receiver tuned to 7.1 meg.—being the centre of the phone band. The g.d.o. is coupled into a one-turn link between antenna base and the 680 pF. capacitor whose other end is earthed. This loop has negligible detuning effect; in fact it took an extra 4 ft. of bottom section to shift resonance 50 kc.

A more sensitive method of adjustment may follow the above. This is to fire up on 7.1 megs. (N.B. regulations) and, using an s.w.r. indicator in the transmitter end of the co-ax, adjust the bottom turn on the loading coil very slightly until s.w.r. approximates closely 1 : 1, which it will do with no trouble. The power handling capability was found to exceed 40w. r.f. input to the antenna base.

The performance of the whip has been excellent, having been in use eight months with a 122 set delivering 4 watts of r.f. output.

Its mechanical and electrical stability is f.b. and despite a 2,000 mile mobile holiday into VK4 through all weathers, the resonance point did not shift more than 10 kc. Two mobile scrambles found us co-winner in one and runner-up in the other, so at least nothing has been lost in this design as compared to more orthodox ones.

A word of warning, however, is to jealously guard the loading coil from the influence of stray magnetic fields. These are likely to alter its characteristics, necessitating a retuning job—ugh! After all that poly. has set hard too! ●

CRYSTALS

Crystals and Accessories, made by International Crystal Mfg. Co. of U.S.A., for Amateur and Commercial use are now available in Australia in the following types and frequencies.

TYPE FA-5 and FA-9: Height 0.765", width 0.750", tolerance 0.01%.

TYPE FM-9: A new miniaturised series. Height 0.510", width 0.400", tolerance 0.01%.

FREQUENCIES

Operation	Type FA-5 and FA-9	Type FM-9
Fundamental	1000 Kc. to 20 Mc.	8000 Kc. to 19.99 Mc.
3rd Overtone	10 Mc. to 59.99 Mc.	20 Mc. to 59.99 Mc.
5th Overtone	60 Mc. to 99.99 Mc.	60 Mc. to 110 Mc.
7th Overtone	100 Mc. to 137 Mc.	Not Available

PRICES: Vary according to Frequency and Type:—
Type FA-5 and FA-9 range from **£3/10/0** to **£9/12/0.**
Type FM-9 range from **£5/5/0** to **£10/15/0.**

TYPE FX-1: These Crystals are also available in 0.01% or 0.005% tolerances for frequencies from 200 Kc. to 60 Mc. Height 0.75", width 0.75".

PRICES: Depending on tolerance and frequency, range from **£3/18/0** to **£16/0/0.**

ACCESSORIES include crystal ovens on standard octal base. Crystal sockets in multiple mountings with or without switches. Crystal controlled converters (single band) for use ahead of standard car radios for Amateur mobile work. There are units to cover all Amateur bands. Printed circuit Oscillators in kit or wired form, also Multivibrators.

ALL PRICES ARE SUBJECT TO SALES TAX.

We will be pleased to receive your enquiries. They will be promptly answered by return mail. Please remember to specify the type of crystal, the mode of operation, e.g. fundamental or overtone, and the exact frequency required.

PHONE OR MAIL ORDERS ONLY—NO CALLERS PLEASE
XJ 6181 or XJ 2353

TRANSTRONIC PRODUCTS
123 BALGOWLAH ROAD, FAIRLIGHT, SYDNEY, N.S.W.

NAT. FIELD DAY 1962

ADDITIONAL RULE 6A

Entrants to Section C for Multiple Operator Stations can set up separate transmitters to work on different bands at the same time. All such units of a Multiple Operator Station must be located within an area that can be encompassed by a circle not greater than half a mile diameter.

For each transmitter of a Multiple Operator Station a separate log shall be kept with serial numbers starting from 001 and increasing by one for each successive contact. All logs of a Multiple Operator Station shall be submitted by the Operator under whose Call Sign the transmitters are working. No two transmitters of a Multiple Operator Station are permitted to operate on the same band at any time.

☆

KNOW THE OSCILLOSCOPE

(Continued from Page 5)

one of getting started. Have a try and you will find it less difficult than you at first thought. You will learn a lot as well as getting a lot of fun out of your work.

APPENDIX

"An Adjustable Power Supply"*

The following is a short account of an easy-to-make unit used to demonstrate the horizontal sweep of the c.r.o. It will find many uses in the laboratory where the load drawn is low. All its parts are from disused radio sets and cost next to nothing. The circuit is shown in Fig. 17.

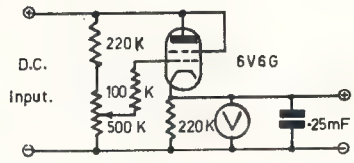

FIG.17

The adjustor is seen to be a cathode follower. A tetrode of the p.a. type, e.g. 6L6, 6F6, 6V6, EL33, EL34, EL41 with high current-carrying capacity and high mutual conductance is used. The 6V6 is a common output valve in radio receivers, and the 500K pot. is commonly a receiver volume control. The less negative the grid becomes, the greater the plate current and so the greater the current through the cathode resistor. The output voltage is developed across this. Disposals voltmeters of about 0-40 v.d.c. are cheap and may be made into 0 to 400v. f.s.d. meters by altering their scale markings and adding a multiplier. Voltages from about 40 to 400 volts are available, the current being restricted by the components used (usually not much more than about 100 mA.). ●

* The original article and construction details, if needed, will be found in "Radio and Electrical Review," May 1956.

AMATEURS USING THE **GELOSO G222-TR TRANSMITTER**
SAY: "THEY GET RESULTS LIKE A 150 WATTER!"

A.M. PHONE AND C.W. RIG

Six H.F. Bands, 80-10 Metres

- V.F.O. controlled.
- Pi-Coupled output.
- Solid "Talk Power."
- Plate and Screen modulated at 100%.
- T.V.I. Proofed.
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- Crystal Mike input.

Price £112/0/0 plus 12½% Sales Tax (freight exra). Immediate delivery.

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HANSON ROAD, WINGFIELD, S.A.
Phone: 45-6021 (4 lines)
Telegrams: "Metals," Adel.

AUSTRALIAN DX CENTURY CLUB AWARD

OBJECTS

1.1 This Award was created in order to stimulate interest in working DX in Australia and to give successful applicants some tangible recognition of their achievements.

1.2 This Award, to be known as the "DX Century Club" Award, will be issued to any Australian Amateur who satisfies the following conditions.

1.3 A certificate of the Award will be issued to the applicants who show proof of having contacted one hundred countries, and will be endorsed as necessary, for contacts made using only one type of emission.

REQUIREMENTS

2.1 Verifications are required from one hundred different countries as shown in the Official Countries List.

2.2 The Official Countries List will be published annually in "Amateur Radio" and will be amended from time to time as required. Should a country be deleted from the Countries List at any time, members and intending members will be credited with such country if the date of contact was before such deletion.

2.3 The commencing date for the Award is 1st January 1946. All contacts made on or after this date may be included.

OPERATION

3.1 Contacts must be made in the H.F. Band (Band 7) which extends from 3 to 30 Mc., but such contacts must only be made in the authorised Amateur Bands in Band 7.

3.2 All contacts must be two-way contacts on the same band. Cross band contacts will not be allowed.

3.3 Contacts may be made using any authorised type of emission for the band concerned.

3.4 Credit may only be claimed for contacts with stations using regularly-assigned Government call signs for the country concerned.

3.5 Contacts made with ship or aircraft stations will not be allowed, but land-mobile stations may be claimed provided their specific location at the time of contact is clearly shown on the vertification.

3.6 All stations must be contacted from the same call area by the applicant, although if the call sign is subsequently changed, contacts will be allowed under the new call sign providing the applicant is still in the same call area.

3.7 All contacts must be made when operating in accordance with the Regulations laid down in the "Handbook for the Guidance of Operators of Amateur Wireless Stations" or its successor.

VERIFICATIONS

4.1 It will be necessary for the applicant to produce verifications in the form of QSL cards or other written evidence showing that two-way contacts have taken place.

4.2 Each verification submitted must be exactly as received from the station contacted, and altered or forged verifications will be grounds for disqualification of the applicant.

4.3 Each verification submitted must show the date and time of contact, type of emission and frequency band used, the report and the location or address of the station at the time of contact.

4.4 A check list must accompany every application setting out the details for each claimed station in accordance with the details required in Rule 4.3.

APPLICATIONS

5.1 Applications for membership shall be addressed to the Awards Officer, Box 2611W, G.P.O., Melbourne, Vic., accompanied by the verifications and the check list with sufficient postage enclosed for their return to the applicant, registration being included if desired.

5.2 A nominal charge of 2/6, which shall also be forwarded with the application, will be made for the issue of the certificate to successful applicants who are non-members of the Wireless Institute of Australia.

5.3 Successful applicants will be listed periodically in "Amateur Radio". Members of the D.X.C.C. wishing to have their verified country totals, over and above the one hundred necessary for membership, listed will notify these totals to the Awards Officer.

5.4 In all cases of dispute, the decision of the Awards Officer and two members of the Federal Executive of the W.I.A. in the interpretation and application of these Rules shall be final and binding.

5.5 Notwithstanding anything to the contrary in these Rules, the Federal Council of the W.I.A. reserves the right to amend them when necessary.

AUSTRALIAN V.H.F. CENTURY CLUB AWARD

OBJECTS

1.1 This Award has been created in order to stimulate interest in the V.H.F. bands in Australia, and to give successful applicants some tangible recognition of their achievements.

1.2 This Award, to be known as the "V.H.F. Century Club" Award, will be issued to any Australian Amateur who satisfies the following conditions.

1.3 Certificates of the Award will be issued to the applicants who show proof of having made one hundred contacts on the V.H.F. bands, and will be endorsed as necessary, for contacts made using only one type of emission.

REQUIREMENTS

2.1 Contacts must be made in the V.H.F. Band (Band 8) which extends from 30 to 300 Mc., but such contacts must only be made in the authorised Amateur Bands in Band 8.

2.2 In the case of the authorised bands between 30 and 100 Mc., verifications are required from one hundred different stations at least seventy of which must be Australian. The Amateur Bands 50 to 54 Mc. and 56 to 60 Mc. will be counted as one band for the purposes of the Award.

2.3 In the case of the authorised Amateur Band between 100 to 200 Mc. and any authorised band between 200 to 300 Mc., verifications from one hundred different stations for each band is required.

2.4 It is possible under these rules for one applicant to receive three certificates, one for each of the authorised Amateur Bands nominated in Rules 2.2 and 2.3.

2.5 The commencing date for the Award is 1st June, 1948. All contacts made on or after this date may be included.

OPERATION

3.1 All contacts must be two-way contacts on the same band, and cross band contacts will not be allowed.

3.2 Contacts may be made using any authorised type of emission for the band concerned.

3.3 Fixed stations may contact portable/mobile stations and vice versa, but portable/mobile station applicants must make their contacts from within the same call area.

3.4 Applicants, when operating either portable/mobile or fixed, may contact the same station licensee, but may not include both contacts for the same type of endorsement.

3.5 Applicants may only count one contact for a station worked as a limited licensee with a Z call sign who is subsequently contacted as a full A.O.C.P. holder.

3.6 All stations must be contacted from the same call area by the applicant, although if the applicant's call sign is subsequently changed, contacts will be allowed under the new call sign providing the applicant is still in the same call area.

3.7 All contacts must be made when operating in accordance with the Regulations laid down in the "Handbook for the Guidance of Operators of Amateur Wireless Stations" or its successor.

VERIFICATIONS

4.1 It will be necessary for the applicant to produce verifications in the form of QSL cards or other written evidence showing that two-way contacts have taken place.

4.2 Each verification submitted must be exactly as received from the station contacted, and altered or forged verifications will be grounds for disqualification of the applicant.

4.3 Each verification submitted must show the date and time of contact, type of emission and frequency band used, the report and the location or address of the station at the time of contact.

4.4 A check list must accompany every application setting out the following details:—

4.4.1 Applicant's name and call sign, and whether a member of the W.I.A. or not.

4.4.2 Band for which application is made, and whether special endorsement is involved.

4.4.3 Where applicable, the date of change of call sign and previous call sign.

4.4.4 Details of each contact as required by Rule 4.3.

4.4.5 The applicant's location at the time of each contact if portable/mobile operation is involved.

4.4.6 Any relevant details of any contact about which some doubt might exist.

APPLICATIONS

5.1 Applications for membership shall be addressed to the Awards Officer, Box 2611W, G.P.O., Melbourne, Vic., accompanied by the verifications and the check list with sufficient postage enclosed for their return to the applicant, registration being included if desired.

5.2 A nominal charge of 2/6, which shall also be forwarded with the application, will be made for the issue of the certificate to successful applicants who are non-members of the Wireless Institute of Australia.

5.3 Successful applicants will be listed periodically in "Amateur Radio". Members of the V.H.F.C.C. wishing to have their verified totals, over and above the one hundred necessary for membership, listed will notify these totals to the Awards Officer.

5.4 In all cases of dispute, the decision of the Awards Officer and two members of the Federal Executive of the W.I.A. in the interpretation and application of these Rules shall be final and binding.

5.5 Notwithstanding anything to the contrary in these Rules, the Federal Council of the W.I.A. reserves the right to amend them when necessary.

AUSTRALIAN D.X.C.C. COUNTRIES LIST

	Phone	C.W.
AC3 .... Sikkim		
AC4 .... Tibet		
AC5 .... Bhutan		
AP .... East Pakistan		
AP2 .... Pakistan		
BV (C3) .... Formosa		
BY (C) .... China		
C9 .... Manchuria		
CE .... Chile		
CE9, KC4, LU-Z, VK0, VP8, ZL5 etc., Antarctica		
CE0A .... Easter I.		
CE0Z .... J. Fernandez Arch.		
CM, CO .... Cuba		
CN2 (prior 1/7/60) .... Tangier		
CN2, 8, 9 .... Morocco		
CP .... Bolivia		
CR4 .... Cape Verde Is.		
CR5 .... Portuguese Guinea		
CR5 .... Principe, Sao Thome		
CR6 .... Angola		
CR7 .... Mozambique		
CR8 .... Goa (Port. India)		
CR9 .... Macao		
CR10 .... Port. Timor		
CT1 .... Portugal		
CT2 .... Azores		
CT3 .... Madeira Is.		
CX .... Uruguay		
DJ, DL, DM .... Germany		
DU .... Philippine Is.		
EA .... Spain		
EA6 .... Balearic Is.		
EA8 .... Canary Is.		
EA9 .... Ifni		
EA9 .... Rio de Oro		
EA9 .... Spanish Morocco		
EA0 .... Spanish Guinea		
EI .... Rep. of Ireland		
EL .... Liberia		
EP, EQ .... Iran		
ET2 .... Eritrea		
ET3 .... Ethiopia		
F .... France		
FA .... Algeria		
FB8 .... A'dam & St. Paul Is.		
FB8 .... Kerguelen Is.		
FB8 .... Tromelin I.		
FC .... Corsica		
FD .... Togo		
FE8 .... French Cameroons		

	Phone	C.W.
*FF8 .... French West Africa		
TU2 (fr. 7/8/60) Ivory Coast R.		
TX2 (fro m5/8/60) Voltaic Rep.		
TY2 (fr. 1/8/60) Dahomey Rep.		
TZ2 (from 20/6/60) .. Mali Rep.		
5U7 (from 3/8/60) Niger Rep.		
6T5 (from 20/6/60) Mauritania		
6W8 (fr. 20/6/60) Senegal Rep.		
FG7 .... Guadeloupe		
FH8 .... Comoro Is.		
FI8 (prior 20/7/55) Fr. Indo China		
FK8 .... New Caledonia		
FL8 .... Fr. Somaliland		
FM7 .... Martinique		
FN (prior 1/11/54) French India		
FO8 .... Clipperton I.		
FO8 .... Fr. Oceania		
FP8 .... St. Pierre & Miq. Is.		
*FQ8 .... Fr. Equatorial Africa		
TL8 (fr. 13/8/60) Cen. Afric. R.		
TN8 (from 15/8/60) Congo Rep.		
TR8 (from 17/8/60) Gabon Rep.		
TT8 (from 11/8/60) Chad Rep.		
FR7 .... Reunion I.		
FS7 .... Saint Martin		
FU8, YJ1 .... New Hebrides		
FW8 .... Wallis & Futuna Is.		
FY7 .... Fr. Guiana & Inini		
G .... England		
GC .... Channel Is.		
GD .... Isle of Man		
GI .... Northern Ireland		
GM .... Scotland		
GW .... Wales		
HA .... Hungary		
HB .... Switzerland		
HC .... Ecuador		
HC8 .... Galapagos Is.		
HE .... Liechtenstein		
HH .... Haiti		
HI .... Dominican Rep.		
HK .... Colombia		
HK0 .... Arch. of San Andres and Providencia		
HK0 .... Bajo Nuevo		
HK0 .... Malpelo Is.		
HL .... Korea		
HP .... Panama		
HR .... Honduras		
HS .... Thailand		
HV .... Vatican		
HZ .... Saudi Arabia		
I1, IT1 .... Italy		

* Fr. West Africa and Fr. Equatorial Africa: Only contacts dated prior to when the particular area obtained separate listing (as shown) will count.

	Phone	C.W.
I1 (prior 1/4/57) Trieste		
I5 (prior 1/7/60) It. Somaliland		
IS1 Sardinia		
JA, KA Japan		
JT1 Mongolia		
JY Jordan		
JZ0 Neth. New Guinea		
K, W U.S.A.		
KA0, KG6I Bonin & Volcano Is.		
KB6 Baker, Howland and American Phoenix Is.		
KC4 Navassa I.		
KC6 Eastern Caroline Is.		
KC6 Western Caroline Is.		
KG4 Guantanamo Bay		
KG6 Marcus I.		
KG6 Mariana Is.		
KH6 Hawaiian Is.		
KH6 Kure I.		
KJ6 Johnston I.		
KL7 Alaska		
KM6 Midway Is.		
KP4 Puerto Rico		
KP6 Palmyra Group, Jarvis I.		
KR6 Ryukyu Is.		
KS4B Serrana Bank and Roncador Cay		
KS4 Swan Is.		
KS6 American Samoa		
KV4 Virgin Is.		
KW6 Wake I.		
KX6 Marshall Is.		
KZ5 Canal Zone		
LA Jan Mayen		
LA Norway		
LA Svalbard		
LU Argentina		
LX Luxembourg		
LZ Bulgaria		
M1 San Marino		
MP4 Bahrein		
MP4 Qatar		
MP4 Trucial Oman		
OA Peru		
OD5 Lebanon		
OE Austria		
OH Finland		
OH0 Aland Is.		
OK Czechoslovakia		
ON4 Belgium		
OX, KG1 Greenland		
OY Faeroes		
OZ Denmark		
PA0, PI1 Netherlands		
PJ Neth. West Indies		
PJ2M Sint Maarten		
PK1, 2, 3 Java		
PK4 Sumatra		

	Phone	C.W.
PK5 Neth. Borneo		
PK6 Celebes & Molucca Is.		
PX Andorra		
PY Brazil		
PY0 Fernando de Noronha		
PY0 Trindade & Martin Vaz Is.		
PZ1 Netherlands Guiana		
SL, SM Sweden		
SP Poland		
ST2 Sudan		
SU Egypt		
SV Crete		
SV Dodecanese		
SV Greece		
TA Turkey		
TF Iceland		
TG Guatemala		
TI Costa Rica		
TI9 Cocos I.		
TL, TN, TR, TT (see after FQ8)		
TU, TX, TY, TZ (see after FF8)		
UA1, 2, 3, 4, 6 Eur. R.S.F.S.R.		
UA1 Franz Josef Land		
UA2 Kaliningrad Region		
UA9, 0 Asiatic R.S.F.S.R.		
UA0 (prior 1/9/60) Wrangel I.		
UB5 Ukraine		
UC2 White Russian S.S.R.		
UD6 Azerbaijan		
UF6 Georgia		
UG6 Armenia		
UH8 Turkoman		
UI8 Uzbek		
UJ8 Tadzhik		
UL7 Kazakh		
UM8 Kirghiz		
UN1 (prior 1/7/60) Kar-Fin.Rep.		
UO5 Moldavia		
UP2 Lithuania		
UQ2 Latvia		
UR2 Estonia		
VE, VO Canada		
VK Australia		
VK2 Lord Howe Is.		
VK4 Willis Is.		
VK9 Christmas I.		
VK9 Cocos Is.		
VK9 Nauru I.		
VK9 Norfolk I.		
VK9 Papua Terr.		
VK9 Terr. of New Guinea		
VK0 Heard I.		
VK0 Macquarie I.		
VO (prior 1/4/49) Newf./Lab.		
VP1 British Honduras		
‡VP2 (prior 1/6/58) Leeward Is.		
VP2 Anguilla		
VP2 Antigua, Barbuda		

‡ One contact with each group formerly known as "Leeward Is." and "Windward Is." dated prior to 1/6/58 may be credited, in which case no further credit as a separate listing, as from 1/6/58, will be given those particular islands.

	Phone	C.W.
VP2		
VP2		
VP2		
‡VP2 (prior 1/6/58)		
VP2		
VP2		
VP2		
VP2		
VP3		
VP4		
VP5		
VP5		
VP5		
VP6		
VP7		
VP8		
VP8, LU-Z		
VP8, LU-Z		
VP8, LU-Z		
VP8, LU-Z, CE9		
VP9		
VQ1		
VQ2		
VQ4		
VQ5		
VQ6 (prior 1/7/60)		
VQ8		
VQ8		
VQ8		
VQ8		
VQ9		
VR1		
VR1		
VR2		
VR3		
VR4		
VR5		
VR6		
VS1 (from 1/4/46)		
VS4		
VS5		
VS6		
VS9		
VS9		
VS9		
VS9		
VU2		
VU4		
VU5		
XE, XF		
XE4		
XW8		
XZ2		
YA		
YI		
YK		
YN, YN0		
YO		
YS		

	Phone	C.W.
YU		
YV		
YV0		
ZA		
ZB1		
ZB2		
ZC4		
ZC5		
ZC6		
ZD1		
ZD3		
ZD6		
ZD7		
ZD8		
ZD9		
ZE		
ZK1		
ZK1		
ZK2		
ZL		
ZL		
ZL1		
ZL4		
ZM6		
ZM7		
ZP		
ZS1, 2, 4, 5, 6		
ZS2		
ZS3		
ZS7		
ZS8		
ZS9		
3A		
3V8		
3W8, XV5		
4S7		
4W1		
4X4 (from 14/5/48)		
5A		
5H3		
5N2		
5R8		
5U7 (see after FF8)		
6O1, 6O2 (from 1/7/60)		
6T5 (see after FF8)		
6W8 (see after FF8)		
7G1 (from 1/10/58)		
9G1, ZD4		
9K2		
9K3		
9M2		
9N1		
9Q5 (previously OQ5-0)		
9S4 (prior 1/4/57)		
9U5 (from 1/7/60)		
—		
—		

D X

VP4, OA4, BV, ZM7, 7G1, FP, AC5, MP4, ZC6, TY2

Sub Editor: ALAN SHAWSMITH, VK4SS, (Phone 4-6526—7 a.m.-4 p.m.)
35 Whynot St., West End, Brisbane, Qld.
ADDRESS CORRESPONDENCE FOR THIS PAGE DIRECT TO THE SUB EDITOR

There has been less local activity this month. The DX has been patchy on all bands, but good at odd times. 7 Mc. has held up well. 14 Mc. has been fair, although not quite as lively as expected, especially in the early evenings. 21 Mc. shows up to advantage one day and then lays lifeless the next.

It has been possible to work Europe in the early mornings on 7 Mc. This band has been the most consistent, but suffers in that there is a lack of activity from those countries that have few Hams. 14 Mc. remained very quiet in the afternoons and evenings up to around 2200 E.A.S.T. It livened up after this but was uncertain with frequent dead periods. 21 Mc. let the Europeans through on odd occasions, but it was mostly Ws with the odd rare prefix peaking through.

A general assessment of the bands would be to say that they have been fair at least, but not as good as this time last year.

Old Father Time surely has lengthened his stride this month. It seems only yesterday that I completed last month's notes. Anyway here goes.

NOTES AND NEWS

S.s.b. activity in the Carribean area is growing. VP3YG is active now and after this FY7, FM7, VP2, VP1 and PJ2ME are expected to show up in that order. They will be using an HB9TL rig and passing it on from one to the other. (News by courtesy K6CQM.)

Moves are afoot to endeavour to get AP5CP on the air daily between 1030-1200 GMT. Expects to operate around 14040 Kc.

VK0VK tells me that there is a possibility of a Ham signal eminating from Heard Is. next January.

KJ6BV is active on s.s.b. (14280 and 14300 Kc.), also on c.w.

If you haven't worked VP8GE on South Georgia Is. as yet, then keep the ear glued to the rx as he's due to QRT sometime around Xmas or a little later.

N.C.D.X.C. members have carried out a popularity poll and asked Danny Weil to sail his Yasme to the following Pacific prefixes. In order of favouritism, they are VK4 (Willis Is.), CR10, FW8, ZL (Kermedec), VK9 (Cocos-Keeling), VK9 Christmas Is.), ZK1 (Manihiki), VK9 (Nauru), KG6 (Marcus Is.), ZL (Campbell Is.), VR5 (Tonga), VK (Lord Howe), KG6 (Iwo Jima), ZM7 (Tokelaus), VR1 (Br. Phoenix Is.), ZM6 (Br. Samoa), VR1 (Gilbert and Ellice Is.), VS5 (Brunei), KS6 (American Samoa), VK9 (Norfolk Is.), KJ6 (Johnston Is.), and about a dozen other places. (By courtesy of K6CQM.)

VR1B will be QRT and leaving for home in VK next March. He is mostly on now s.s.b. around 14020 Kc.

TA2AR says that he is the only legal Ham on air at present. However amended laws are under way and it is expected that within three months several TA stations will be active. (By courtesy of K6CQM.)

ZC4SG works 7 Mc. regularly and is looking for VKs. QSL via W2CTN. Listen around 1900-2100 hrs. GMT.

ZS2MI has been heard from Marion Is. (no more news available).

Remember XW8AI? He is now FG7XF. He works both 7 and 14 Mc. QSL via W2CTN. He works 14 Mc. c.w. around 2000 hrs. GMT.

Bob, of KH6EDY, QSLs via W5QK and Jim, also of KH6EDY, QSLs via VE7ZM.

MP4BDN is G3LMT on Bahrein. He QSLs by air mail.

HV1CN now seems to be active on 7 Mc. c.w. around 2000z. So many calling, a QSO would be like winning the casket.

For those Hams who are connected in some way to Scouting Groups, it may be of interest to note that the Hong Kong Scouts are putting a station on the air for a few days from 27th Dec. The call will be VS6AJ/A and the frequencies will be 7025, 14025 Kc. mainly.

ACTIVITIES

Ted VK5JE, who works a lot of 7 Mc. DX, sends in this list: 7 Mc. c.w. wkd.: MP4BDN (2100z), who is G3LMT on Bahrein, QSLs by air mail; ZC4IP (2045z), O.T., QSL air mail; VS9AAC (2100z), HA3KGC (2050z), KX6AJ (1015z), UA0EH (0955z), ZE3JJ (2110z), K2DGT (2035z), OH7NF (2040z), LZ2KBA (2100z), LA2B (0835z), VS1KG (1300z), UA4HM (1845z), SP-7HX (1850z), OK1BP (1940z), OK1KIR (1950z), UB5UW (2030z), YV2BJ (1100z), K2EGI (1995z), K1DMG (2015z), W2KQT (2020z), G5RI (2025z), VK5XK/9 (Norfolk Is., 0815z), YU3FS (2015z), DJ2AA (2035z), KW6DF (1035z), W, JA, VE. 7 Mc. c.w. hrd.: I1ZZG, UI8AU, UC, SV0WC. QSLs rcd.: ZS4IP, MP4BDN, VR1B, HP1IE, 5N2LKZ, EP1AD. Ted's rig is 60w., an 807, folded dipole with centre 33 ft. vertical, and it really gets out.

Arch VK5XK/VK9 (Norfolk Is.) says he's having an enjoyable holiday and not chasing DX. However, he had already wkd. YO1Q, YU4CI, 96ZO and many others, when I QSOed him. Says it is a great spot for Amateur Radio and a holiday (whos next?).

Geoff VK3ZMS heard the following, during Nov.: 21 Mc. a.m.: VKs, ZL, JA3CKV, KR6AC, KH6BJU. 14 Mc. c.w.: VR2DK, VR2EA, VS-1KP, UC2. 14 Mc. a.m.: VR4CB, JA2XR, JA-2AJV, KR6OG. ZP5BC, KR6OH, HM1AX, I1SMM, LU1DAB, VK0FZ. 14 Mc. s.s.b.: KC-4USP/MM, KN6BU, KX6VO, VR1B, KC4CP, OA4K, LZ1AMZ, KA2JL, KA7TB, WA6MFY, ZK1BS, UA3AT/P. 14 Mc. a.m.: BV1US. 3.5 Mc. s.s.b.: KP4AX, PJ2AA. Thanks Geoff, please send in some more, and G.L. with the c.w. exam.

Hal VK4DO, who says the bands have been patchy this month, has QSO'd the following: 14 Mc. c.w. wkd.: K, KH6, W, JA, DL6FF, HB9KO, HC1JU, HK7UL, JT1KAA, KL7JDO, KP4CC, KH6EDY (Kure Is.), KZ5MQ, OH2CU, OK2LE, VR2DK, VS4RM, VS4RS, VS9MB, UA-4IF, UA4SM, UA6LO, YJ1MA, 5N2LKZ. 14 Mc. c.w. hrd.: AP5CP, BV3HPT, DJ1FW, DJ6EM, HA8CF, HA9CS, HP1IE, HS1X, HS2M, I1WLF, JZ0ML, MI/HB1EA, OE5LX, OH3PC, PA0ZZ, PY2GDB, SM5AQX, SM7CNI, SP8KAF, UA1FJ, UA3GJ, UA3KCM, UA6KAA, UB5JM, UB5KIE, UB5NP, UC2BS, UO6BN, UP2KAF, VR4CV, VU2CK, VU2GE, XZ2TH, YO2BU, YO3RI, YV-5AE, ZC4TX, 4S7NE, 4X4OH, 4X4MZ, TT8AT (Henri, Tchad). 14 Mc. phone wkd.: KH6EDY. 14 Mc. phone hrd.: PJ2AA, VR4CB, VU2CK. 21 Mc. c.w. wkd.:: DL7JA, HB9KO, JA6PY, KL7JD, OK1CC, VS1FW, VS4RS. 21 Mc. c.w. hrd.: DL1EE, DJ6TN, DJ7CL, DL7JA, DL7PF, EA4CR, HA0DA, HA1KSA, HB7EW, HB9UL, I1SM, I1ZL, KC6BD, KX6AT, LZ1KNB, ON-4II, SP9SG, UB5CC, UB5MN, UL7KBK, VS-9AAC, VS9AGO, YO6XI, ZC4FS, 9M2FK. 21 Mc. phone wkd.: HB9KO, JA4HM. 21 Mc. phone hrd.: AP2MR, DJ2JA, ZK1AR, 9M2GV.

Rick VK3ARX recently wkd. on 14 Mc.: 5N2LKZ 0740 GMT, AC5FN 1140z, CN2BK 0835z, VQ5GJ 2135, OD5CT 0500, VS9KPH (Kamaran Isld.), SV0WC 2015, HM1AS 0920, MP4BDN 2015. Cards have been received from AP5CP, FO8AQ, VR4CV, VR5RZ, KJ6BV, HP1SB, VP-5BL, XE1RY. (I hope your three-band quad works out OK, Dick OB.)

Eric BERS195 heard this DX: 3.5 Mc. c.w.: VK and ZL, including ZL1II/MM. 7 Mc. c.w.: DM2AMG, G8FF, HA3KGC, HB9AAG, KC6BD, LZ2KBA, OE3BP, MP4BDO, OK3KOX, SP9ACK, UA2AB, UA9PP, UB5KKE, UO5KAA, YO6KBA, YU2AAE, ZC4PB, SM7BAU/MM. 14 Mc. c.w.: AP5CP (1300z), BV1LUS, CR7IZ, CR9AH, K2UNQ/HL, JT1KAA (1130z, Zone 23), JZ0BM, KC6BD, KW6DG, KZ5AU, MP4BDN, TI2CAH, UG6KAA, UJ8KAA, VK0TC, VR2BZ, VS4RM (1200z), ZS6AXU (1515z), W5CES/MM, K0GVB/MM. QSLs rcvd.: AP5CP, ET2US, HP1IE, KH-6EDY, OA4BW, TI2CMF, UA0KYA (Zone 23), UI8KAD, UJ8AC, VE8YD (Zone 2), VQ4DW, VS1FW, 9N1GW, SM3AE/MM, VP5BH/MM.

Eric also handled these QSLs for the VK3 Bureau, this month: UA1KED (Franz Josef Land), KH6EDY, AP5CP, HI8DGC, XE1VI, HM4AQ, HM1AS, HK4EB, PJ3AI, KV4CI, OA-4EY, BV1USE. (Eric has had QSL from 125 countries this year.)

Frank VK2QL, who always seems to be in touch, records these: 3.5 Mc. c.w. wkd.: KW-6DG, HC1AGI, JA6AK, and Ws. 7 Mc. c.w. wkd.: VS9AAC, UC2CD, DJ4DN and hrd MP-4BDN, FA8RJ, CN8RP, CE1AD. 14 Mc. c.w. wkd.: FY7YF, EP2BB, AP5CP, MP4BDN, CR-7IZ, KH6EDY, HS2M, HS1X, HK0QQ, M1/HB1EO, PJ3AD, 5N2LKZ, FR7ZD, YJ1MA, HM4AQ, etc. 21 Mc. c.w. wkd.: VS9AAC, VS-4RS, and hrd. HV1CN.

Yours truly, VK4SS, found 7 Mc. just good enough to stay on it. The best wkd. were UA9DN, UA9WF, UT5BK, UA4YY, UA1NZ (Archangel), UW0FB, UH8KBB, UA0KJA, UA-9KOA, UA0KAI, 4X4WF, PA0PN, OK1US, OK-2KGZ, OK1FV, VE8DN (Central Arctic), VE-3CSY, KC6BD (Truk Is.), 9M2GJ, ZS4SG, ZC4IP, G3FAS, G8FF, LA5HE/HZ, SP7HX, SP9DT, SP8HU, SP3KCC, SP9RF, UA3KND, DU6IV, ZE3JJ, EP2BB, XZ2TH, VK0VK, VK-5XK/VK9 (Norfolk Is.), DL9ZN, DL5RA, DL-5DG, DJ4OP, DJ2XP, HB9ABB, HB9EU, YU-2AAE, YO9CN, HA5KFR, W3SQX and VE LP at 2000z.

Stop Press on VK5XK/VK9. Arch has given me a further list as he will be QRT in a couple of days. 14 Mc. c.w. wkd.: VR4CV, YJ1MA, YV4CI, HK3AH, LU3HL, LU5AQ, LU8FBH, JZ0QI, LU6DJX, HB9MO, VQ4IN, HB9J, HB-9MQ, PY5OD, PY1ARZ, PY1ADA and many others. (Using a doped-up Mk. 3 and a single wire antenna, and about 18 watts input, I for one would like to say that from a DX point of view Arch's holidays have been very successful.) He also requests that 73 be sent to VK5PS. (That's the only way Pansy's call can get on this page!—Editor.)

Please note.—I still want more activity reports and QTHs, etc. If letter writing is too much of a chore, you can find me each Sunday on sked for any DX news or traffic. 14 Mc. c.w. at 220z and 7 Mc. c.w. at 2230z. Low end of band. So please call me and give me what you have.

ADDRESSES

AP5CP—Mr. Mohd, Dacca Signals, Dacca No. 6, East Pakistan.
OA4BW—K. R. Wille, Box 681, Lima, Peru.
VE8YD (Zone 2)—Al Conner, Melville Pen., C/o. Fed. Elec. Corp., Airport, Winnipeg, Manitoba, Canada.

SUMMARY

Prediction for January: 21 Mc. should be at its best this month, but this remains to be seen. 14 Mc. should be good to the West and the L.P. to W land may open around 2030 hrs. GMT. 7 Mc. I expect will turn out to be rather quiet especially during the early evenings and then gradually improve as the night lengthens. The West L.P. circuit to W land should occur at any time now, and probably would be best for a short time only around 2030 hrs. GMT at this QTH.

I have been reading the lists of DX worked by some of the top W boys. These show that by far the large majority of choice DX is worked on 14 Mc. c.w. Next most popular mode and frequency would be 14 Mc. s.s.b. The latter may be on the increase but won't overtake c.w. DX for a long time (if ever).

Looking through QSLs and other info, it is obvious that a large part of world DX is worked by low power men (Ws excepted). Many of the well known operators on any or all bands run less than 100 watt rigs. The obvious conclusion is that relatively speaking the antenna is the most important link in communication (and often the most neglected).

Here in VK the QRP men excel themselves. In fact they compile the majority of **DX worked** that I receive in the mail each month. A more efficient antenna is unquestionably better than doubling your power.

Bob K6CQM, Editor DX'er, has a word or two to say on the issueing of awards. Although he points the finger at no one specifically, he claims that there are so many awards now being made available by so many clubs, countries and associations, etc., that the motive for some is for profit as the cost in I.R.C's. is more than the award is worth. This descent into commercialism would soon obviously render the certificate worthless. As Bob points out, the latter should be offered free of charge (except for minimum costs such as postage, etc.) as an award for attaining a certain goal. Our N.C.D.X.C. Editor says that he refuses to buy his way to the top of the C.H.C. honor roll with a bunch of worthless pieces of paper.

You may have heard of the young Ham's wife, whose son needed a change of shirt and pants each day on his arrival home from kindergarten, so grimy did he become during play. Hearing a scuffle on the back steps at his usual arrival home time, she called out a little impatiently, "Hurry up, come inside and change your clothes." Angered at the following silence, she flung open the door to find framed in it a very fat, sweaty and slightly apprehensive greengrocer.

Here's wishing you all every happiness and success in the coming 1962. Let's make "A.R." a bigger and better affair than ever before. From a DX point of view I believe the year will be kind enough notwithstanding the low solar predictions. 73, Al, VK4SS.

S W L

OH0, KL7, ZD8, ON4, LZ, FF8, VP8, XW8, 5H3, W0

Sub Editor: ROBERT YOUNG, WIA-L3076,
14 Alverna Grove, Brighton, Victoria
ADDRESS CORRESPONDENCE FOR THIS PAGE DIRECT TO THE SUB EDITOR

Hello fellow short wave listeners, this is your new scribe for these notes, so I will introduce myself to you. My name is Robert Young (no relation to the famous film star), WIA-L3076 (address as above), Secretary of the S.w.l. Group, Victorian Division of the W.I.A. Ian Woodman, WIA-L3006, Assistant Secretary, is also helping to compile the notes with me.

Firstly, I would like to thank our past Secretary, Maurie Cox, for his outstanding service as Secretary and writer for the S.w.l. notes. Unfortunately Maurie is forced to lock up his rx, haul down his antenna, and nuckle down to study for his leaving examination, so I wish you all the best Maurie in your studies.

This being our first attempt at writing notes of this nature, I hope you will bear with us and help in making these notes in the magazine a success. So please write either to myself or to Ian with news from your Groups as to what you are doing and future activities. Please don't forget to write. I will answer your letters either personally or in the notes.

VK3 NEWSREEL

As Maurie said we have had no news from Federal Executive about the awards. We have had quite a few very keen s.w.l. coming in to the construction night on the second Friday of each month with their rx's and partly-built rx's for the technical staff to either line-up or find out why they are not operating. We would be very pleased if any Amateur could assist in the technical side for this night. Ian Woodman was the only Amateur there to assist and I am afraid he did not know whether he was coming or going.

Sorry to hear about your home-brew rx playing up on 20 mx Mac, think of all the DX you are missing. Also Maurie may get a few new countries out of this unfortunate incident. Someone was telling me about Noel Harrison's 50 ft. mast, breaking in half just above the guy wires. You will have to mix some more of that patented cold water glue up Noel to stick it together again. Ian Thomas seems to have been concentrating on his swatting for his examinations and also along the lines of hi-fi. Have you found that fault in your audio amplifier yet, Ian? Hope you succeed in building up that 6 mx tx that I saw lying idle on the shelf.

Yours truly is seriously considering buying a 40 ft. self-supporting windmill tower with prop. pitch motor, etc., and I am hoping to mount a multi-band quad on the top, but the trouble is I will have to get a better rx to fit in with the antenna—a Q6er would fit in nicely. Maurie Cox is still listening hard on s.s.b. after getting over a bit of 2nd detector trouble in his rx; it's marvellous what a new valve will do.

In regard to the S.w.l. Convention, to be held at Warrnambool on 2nd of March, all s.w.l. are welcome to attend. If anyone is interested, let me know, so as accommodation arrangements, etc., can be made. Eric Trebilcock suggested to have a tour over the Fletcher Jones' factory at Warrnambool (we may get a few free samples). Their factory is very well planned out with trees, shrubs and lawns; it should be an interesting sight, Eric.

SOUTH AUSTRALIA

Colin says that things are very quiet in the South East due mainly to the s.w.l's. studying for the A.O.C.P. exams in January. There will be four or five of them sitting for the Limited licence. Dale L5025, who sat for the last exams, has received word that he has passed the Limited licence, but as yet has not applied for his call sign. Listening at Dale's QTH is limited due to study and the construction of a 2 mx converter, the line-up on 2 mx is a xtal locked converter feeding into a No. 19 rx with a tunable i.f. of 3-7 Mc. The antenna for 2 mx is a 10 el. beam on a 12 ft. boom and 55 ft. high.

Les Dicker, L5036, is busy sorting out his equipment as he has recently moved QTH. His rx set-up sounds quite good, it consists of a home-brew rx originally built by Howard 5XA, consisting of 9 tubes tuning 550 Kc. to 22 Mc. The antenna is a 40 mx dipole, 67 ft. long. At present Les is building converters to cover 28, 50, 144 and 288 Mc., using a 6J6 as a mixer and osc. to feed in at 7 Mc.

The VK5 S.w.l's. in Mount Gambier are considering publishing a magazine. They received a letter from the President of the South Australian Division of the W.I.A. regarding the publication of such a magazine. He is all in favour of the move to create interest in the S.w.l. Groups, but as yet the President has not heard the views from other members. Official notice will be received as soon as it is confirmed.

Gary L5026 has modified a 522 rx for 2 mx and is very pleased with the results so far. Col 5CJ gave Gary a call so that he could find the band and peak up the coils, but as yet he has not heard any other stations. The antenna at present is only a four element, just above the roof of the shack.

RADIO MAIL

I wish to thank the following for their letters: Chas. Aberneathy, Peter Drew, Dave Jenkins, John Kennedy, Don Grantley, Harry Major, Colin Hutcheson, and Eric Trebilcock.

Eric Trebilcock.—Here is that man again, with his best cards received in Nov. (to 15/11/61): AP5CP (QSL No. 273), ET2US, HP1IE, KH6EDY/Kure, OA4BW, TI2CMF, UA0KYA (Zone 23), UC2AG, UI8KAD, UJ8AC, UQ2KAE, VE8YD (Zone 2), VK0JM and LU2ZR (Antarctica), VK0WH (Macquarie Is.), VQ4DW, VS1FW, 9N1GW (Nepal). Best loggings for past month include KH6EDY, JT1KAA (Zone 23), AP5CP (East Pakistan), UG6KAA, VS4RM, VR4CV, K25AU, UA2AB, CR7IZ, KC6BJ. Thanks for the above information Eric.

Noell Harrison, WIA-L3101, in his shack.

Chas. Aberneathy has not received his rx back as yet due to some slight modifications to it, however he has received a 50 Mc. card from VK6ZDS owing from 3/1/61, also cards from W0JYW, XE1JP, ZK1AR, G3EQL, VE5BO, VK9AM and FK8AU, who doubled up and sent two cards. During the absence of his rx Chas. has been listening to DX on 144 Mc., 100 miles being the best DX heard. Chas. has just completed a power supply with three outlets, one for a 50 Mc. converter and another for 144 Mc., with one for the volts for his S meter, which is quite handy in saving the extra drain on the supply from the rx. Chas. claims that they have had rain up in VK2 for the past week (RAIN, he says), and has not been doing anything on the week-ends except catch up with his mail.

John Kennedy has tried out Peter Vernon's method of tuning in s.s.b. with two dual wave rx's. He managed to tune in a W6HLH on 20 mx (what has happened to the old b.f.o.!). John has also been listening to some DX on a AR88, which is the property of 3TA. Stations heard on 14 and 21 Mc. were ZS1CD, VR1G and VK0RF. These stations were heard during the Jamboree of the Air and the bands were very crowded.

Peter Fields has dropped me a few lines describing his rig. It consists of a 13-tube unknown make rx (who cares as long as it works) and two ex-R.A.F. converters covering 21, 28 and 50 Mc. The rx itself without converters covers 1.5, 3.5, 7, and 14 Mc. The only antenna Peter has up at present is a coax-fed 7 Mc. dipole up 30 ft. in the air. It is used on all bands including 6 mx. Peter has heard some good DX on 6 mx; they were VKs 2ZLP, 4NG, 2AQI, 2ZER, 2ZGL, 4ZCD, 7AI, 7AQ and and also Peter thinks 8AV. Every station was running a 5 by 8 except 8AV. (DX sounds very good over in VK5 land). Some of the latest QSLs received by Peter are HB1KU, JA1BIR, VR4CB, VR5RZ, JA2KX, W5BJZ/KH6, W8WT and XE2TF.

Sorry to hear that Harry Major has not been able to attend our meetings as he hoped, but will make a special effort to attend the Xmas break-up on 8th Dec. Harry uses for a rx a 3-tube short wave set and is fed with a 20 ft. indoor wire running north and south across the room. It brings in many of the bigger overseas short wave stations, besides a number of the Australian stations. Harry received a card from Switzerland a few weeks ago, but it is of very poor design. This station is heard regularly on Saturday afternoons about 3 p.m. on 7 Mc.

Now a few words from the "Ears of Nedlands". Peter's rx set-up on 80 mx is a home brew 3-tube regenerative, the antenna is a 30 ft. long wire, 7 ft. high. For s.s.b. on 80 Peter uses a dual wave rx in conjunction with the regenerative rx for c.w. and s.s.b. (no, not another one). 40 mx rx is a 6-valve dual wave (1935 model) which has no r.f. stage. Antenna is a half wave 40 mx dipole about 20 ft. high which is fed with twin flex (about 120 ohms). For 20 mx the same dual wave rx is used, so that is the rx set-up of Peter's and how he receives all the DX I will never know; perhaps he has a very good location. Peter also has a 10 transistor dual wave rx which covers 20 and 40 metres.

Dave L3039 has not been very active on the listening side, because he has to milk the cows, etc., and turn around and prepare his own meals. Dave has heard some Europeans on 7 Mc. and occasionally on 3.5 Mc. c.w. first thing in the morning. The DX total is 141 countries heard and 10 confirmed. Dave says that he has not got around to sending out any QSLs but hopes to very soon when things settle down on the farm. A start has been made on the construction of a converter covering 14, 21 and 28 Mc. using transistors with an r.f. stage. Dave finds a few signals on 14 Mc. from Europe in the mornings between 0530 hrs. to 0600 hrs. E.S.T., also a few Ws come through at night around 2200 hrs.

Don L3088 has been hearing some terrific DX up on the border. He has heard in Nov. to date 48 stations. Don heard CT3AB and also VS9AAC early one morning.

Well that's it chaps for this issue, so I would like to wish you all a Happy and Prosperous New Year. 73, and the best of DX, Robert L3076.

DX LADDER

	Countries Conf.	Countries Hrd.	Zns. Conf.	S.s.b. Conf.	S.s.b. Hrd.	W Stat.
E. Trebilcock	274	280	40	—	—	50
D. Grantley	91	234	37	—	72	—
A. Wescott	76	157	31	31	92	—
M. Hilliard	65	207	33	5	99	11
M. Cox	35	209	20	4	114	13
C. Aberneathy	30	57	21	—	—	13
P. Drew	26	170	17	6	64	4
P. Fields	26	133	—	—	—	—
N. Harrison	20	34	17	—	—	22
D. Jenkin	10	141	7	—	—	—
N. Fisher	3	36	3	—	—	—

☆

UNUSUAL CONTACT

It may perhaps interest readers of the magazine if I report the details of a three-way contact last night (28th Nov.), using 14 Mc. phone.

At 2115 hrs. E.A.S.T. VK4XE/MM, ZL1AOV/Aero Mobile, and my own station VK2APL were in communication with each other. VK4XE/MM was on a small vessel 150 miles north of Cairns, and ZL1AOV/Aero Mobile was flying from Darwin to Brisbane, en route to New Zealand. The ship was QSA5 S8 and the aircraft QSA5 S6.

My transmitter was running 50w. input and my antenna was a 135 ft. windom.

I feel that possibly this QSO was unique in VK Amateur Radio, and submit these details for general information.

—Neville A. Loffman, VK2APL.

VHF

50 – 144 – 288 – 576 – 1296 Mc.

Sub Editor: BILL ROPER, VK3ARZ,
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ADDRESS CORRESPONDENCE FOR THIS PAGE DIRECT TO THE SUB EDITOR

V.h.f. Amateurs, like lower band operators, are more or less divided into those who like rag-chewing, the DX enthusiast, the mobileer, the experimenter, and so on. Judging by the increasing amount of activity in the USED sections of our v.h.f. bands, it would appear to be about time some system of segregation and operating procedure was introduced on a basis similar to that found on the lower bands in various parts of the world. How many times have you attempted to copy a weak DX signal buried beneath a local station? How many times has an unsuspecting local rag-chewer come up on top of the DX signal in the middle of your contact? How many times have you tried to copy a weak fluttery mobile signal right alongside the sidebands of a strong local? How many times . . . and so on.

These, and many other instances of unnecessary interference, could perhaps be partially prevented if the v.h.f. bands were voluntarily divided into segments to provide reasonably clear channels for c.w., DX skeds, mobile, etc.

The two-bands mainly concerned are 6 and 2 metres where most of the activity is crammed into the lower megacycle.

Does the v.h.f. activity in your State warrant further thought on this subject? If so, how about acting promptly, and helping to diminish the increasing amount of unnecessary interference on the v.h.f. bands?

As you can see, the v.h.f. notes this month are published as presented by the v.h.f. scribes in each State. If you feel that news from your area is not included in these notes because you are isolated from the V.h.f. Group in your State, how about appointing yourself a news correspondent and forwarding any items of interest to your Divisional V.h.f. Group?

This, of course, applies to everybody. The scribes cannot make the news and they cannot monitor the bands all the time. Therefore these notes can only be as informative and interesting as you, the active v.h.f. Amateur, cares to make them. Remember, the fact that there is no news from your area is your own fault.

By this time the Ross Hull Contest will be in full swing. I hope that a greater number of contestants enter logs this year than last year. Even if you realise you don't have much chance of winning a section, still enter a log.

Also this season, with two active VK8 stations on 6 metres in 8AV and 8AU (I hope you did receive that call, David), there should be quite a number of Amateurs qualifying for the 6 mx W.A.S. award.

NEW SOUTH WALES

VK2WI, the N.S.W. Divisional station at Dural, has, since mid-November, been operating on the 6 mx band. The morning and evening broadcasts are being done on 50.16 Mc. The rig at the moment is a 5763, 2E26, 832A, running 20 watts to a dipole 35 ft. high, running almost east and west. Modulator is a pair of 807s, driven from the station audio network. It is expected in the near future to increase power to 100 watts, change frequency to a spot higher in the band, and erect a turnstyle antenna. Thanks go to members of the Dural Committee and the V.h.f. Group for this transmitter.

VICTORIA

After several months of very low activity, 6 metres is becoming more popular with several openings to incite the interest. Very weak VK4 signals were heard on the afternoon of 11th Nov., but I understand that the first contact was at lunch time on 13th Nov. when Jim 3ZHF worked 4ZAZ. The signals were not very strong and didn't hold up for very long.

On Friday, 17th Nov., 4BG was heard working 7ZAQ, and then a VK5, but faded out at 1755 hrs.

Then on Tuesday, 20th Nov., between 1800 and 2000 hrs., the first big break-through to VK4 occurred. The VK4 stations logged were 4NG, 4ZAZ, 4ZAW, 4ZDA, 4ZHG, 4LN and 4HG. Signals were of reasonable strength, but quite a bit of QSB. The thoughts of the VK3 operators were that, while they could hear the VK4 stations without any trouble, they had great difficulty in making contacts with them.

Graeme 3ZIX reports that on 24th Nov. at 1845 hrs. he worked Bob 4NG, 5 and 8 with QSB, and also heard 4PG. Then at 1900 hrs. the same evening Graeme heard 8AV at Daly Waters working a VK5. Signals were 5 and 7 with heavy QSB. Unfortunately Graeme was unable to raise 8AV.

On 28th Nov. at 1915 hrs. and on 29th Nov. at 1830 hrs., several weak VK4 signals were heard but no contacts made. Again on 1st Dec. at 1900 hrs., 4PG was heard very weakly.

On the morning of 2nd Dec. several weak ZL signals were heard, but no contacts made. Then at 1730 hrs. the same day, the northern VK4 stations were worked; signals peaking up to S9, with heavy QSB. But at 1750 hrs. the skip shifted south and the southern VK4 stations came through with possibly the strongest signals ever heard from them—9 plus, plus. This state of affairs only lasted for ten minutes then the skip shifted back to the northern stations again.

Ian 3ALZ has now erected his 30 ft. long yagi for 6 mx and intends to be right amongst the DX this season. George 3ZCG, at Morwell, commenced tropospheric skeds with 4ZAZ on 1st Dec. and will be keeping these skeds at 1945 and 2345 hrs. nightly.

A new station on 6 mx in Melbourne is Mervyn 3ZMC, located at Frankston. He is running 10w. input to a VT501 and uses a 4 el. yagi. The usual 3-tube xtal locked converter is used for receiving.

The final 6 mx scramble in the series of six was held on 26th Nov. with 3ZGP as control station. Nineteen stations participated. John 3ZJV at Olinda was the winner with 17 contacts. The overall winner for the series was Peter 3ZDO with a total score of 84 contacts, second was Ivan 3ASG, 76 contacts; and third was David 3QV with 66 contacts. The next 6 mx scramble will be held on Sunday, 28th Jan., commencing at 1945 hrs. Keep the date and time in mind.

Activity on 2 mx appeared to drop off quite a bit during Nov. but there were still some interesting contacts made. At 2000 hrs. on 5th Nov. 3ZCG at Morwell worked 7LZ and 7BQ; 3ZDP at Sale worked 7LZ, 7PF and 7BQ; and 3DY at Maffra also worked 7LZ and 7BQ. On 6th Nov. conditions were still very good and 3ZCG worked 3FO at Maldon with 5 & 9 sigs. 3ZAQ at Warragul worked 3FO and 3ZIK at Castlemaine. On 7th Nov. 3ZAQ contacted 3JW at Bendigo, and on 12th Nov. 3ZDP at Sale heard 3JW but was unable to contact him.

On 10th Nov. 3ZDP had a field day, working Melbourne stations. 5AW's sigs were heard on the morning of 11th Nov. but no contacts made. 3ZLT had a contact with 5AW on the morning of 19th Nov. and the same evening heard 7WI/P on Mt. Wellington, but was unable to get his tx fired up before they closed down.

Several new stations appeared on 2 mx during the month including 3APJ, who operates portable from the Y.M.C.A., mainly on Tuesday evenings. 3AKJ has migrated from 80 mx and is using the ever-popular 522 on 144.162 Mc. Antenna is a 6 el. yagi up 24 ft. 3IX, at Essendon, an old-timer to Amateur Radio, has also appeared on the band using a 522 into a 5 el. yagi.

3ZLM (Sale) is now active on 144.165 Mc. and 3ZNK (Morwell) has appeared on 144.63 Mc., using a 32 el. phased array. 3ANS (Wangaratta) is no new face but is now fired up at Wangaratta using a 10 over 10 yagi and assures me that in the Melbourne direction there is a big gap in the hills. 3ALZ has re-built his antenna farm and will be using two stacked 30 ft. yagis on 2 mx. 3VL (Numurkah) is very interested in 2 mx and has heard Melbourne signals on a number of occasions. Each Wednesday evening from 2030 to 2130 hrs. he particularly looks for Melbourne contacts. Rex has also heard 2ZCI several times.

The 2 mx scramble on 12th Nov. resulted as follows: country section was won by 3AGV with 42 points; city section, 3ZCB first with 32 pts. In the overall scoring for the series, 3ABK was the country section winner with a terrific total of 190 pts., 3ZL at Ballarat was second with 55 pts.; city section: 3ZCB was the winner with 141 pts., 3AAD second with 130 pts. The next 2 mx scramble will be held on Sunday, 14th Jan. at 1945 hrs.

The Nov. 2 mx fox hunt was won by Tom 3AOG with only 6 pts. lost. The next hunt will be held on Wednesday, 10th Jan. commencing at 2000 hrs. from College Crescent at the rear of the University.

The definite highlight of the month was the v.h.f. field day on 19th Nov. This was voted one of the most successful field days for some time. Most of the activity took place on 2 mx. The highest score for the day was returned by 3ZLT/P on Mt. Donna Buang, who worked 53 stations for 59 points, plus 10-pt. bonus for longest distance worked—362 miles to 7WI/P.

7WI/P worked five VK3 stations and greatly contributed to the interest and success of the field day.

The Jan. field day will be held on Sunday, 21st and once again 7WI/P will be on Mt. Wellington. Full rules for these field days appeared in the v.h.f. notes in "A.R." Sept. '61.

The Jan. meeting of the V.h.f. Group will be held on Wed., 17th, but you will have to listen to the Sunday 3WI broadcasts to find out the location.

Please note that because of a course of study which will consume most of my spare time for the next three years, I have reluctantly had to relinguish the job of Publicity Officer for the VK3 V.h.f. Group. Len 3ZGP will be filling in until the elections in May and I hope that you will keep him supplied with news items for both the broadcasts and these notes.—3ARZ.

QUEENSLAND

Brisbane: There were quite a number of openings on 6 mx during Nov. details as follows:

To JA—25/11/61, 26/11/61.
,, VK2—21/11/61.
,, VK3—9/11/61, 21/11/61.
,, VK5—15/11/61, 21/11/61, 24/11/61.
,, VK7—16, 17, 18, and 21/11/61.

A new station on 6 mx is 4ZAW who runs 20w. input to a 2E26 in the final. Modulation is by a series screen method, and the antenna for transmitting is a four el. beam. Receiving is via a dipole, and a t.v. turret tuner fed into a Command rx.

Brian 4ZAP and his wife, Pam, have been in Dalby for a couple of weeks and returned to Brisbane on 19th Nov. While in Dalby, Brian operated portable with a 60w. tx and a 9 el. yagi. He worked the Brisbane boys regularly over a distance of 120 miles, even though the path was made difficult by the Great Dividing Range which inconveniently cuts between the two places.

The 2 mx hidden tx hunt was held on 3rd Nov. and took the form of a fox hunt. 4ZAX was the fox and after an interesting evening, finally stopped at the place where supper was to be held. Ten cars participated in the hunt.

Dane 4ZAX now has an excellent antenna system for this band, consisting of four yagis of 14 elements each at a height of 80 ft. He has been hearing signals on a frequency of 144.0025 Mc. via the medium of meteor trail reflections, and shortly will be connecting up a parametric r.f. stage.

The last V.h.f. Group meeting was held at the home of Ron 4ZBZ and 17 people were present. A tape recording of the lecture by Ed Tilton, W1HDQ, was played and also a tape of 4ZBY who achieved fame by working a JA with a tx running 17w. input attached to his motor cycle.

A visitor to Brisbane, Rick 4ZWL, who is on a three-weeks' holiday from Cairns, has been visiting various shacks. Rick is very impressed at the size and complexity of some of the rigs constructed by the v.h.f. gang.—4ZBT.

WESTERN AUSTRALIA

Well here we are again and unfortunately I have to apologise for no v.h.f. notes from VK6 appearing in last month's "A.R." This, however, was not because they were not written and posted in plenty of time to be published, but because the day after the notes were sent I was advised that David 3AAU had shifted QTH and obviously they did not catch up with him.

V.h.f. activity has taken a rise with many more stations being heard and worked on both 50 and 144 Mc. Several reasons could possibly be offered for this, however we are not really concerned as to why but very pleased that this is the case.

The DX on 6 mx seems as though it could prove quite interesting this year with three openings already to VK5. One very interesting point was that on 30th Nov. 3AAU was heard calling CQ on c.w. on 50.4 Mc. at 1700 hrs. W.A.S.T. However it would appear that his rx was not as good as his tx as he did not

(Continued on Page 19)

Correspondence

Any opinion expressed under this heading is the individual opinion of the writer and does not necessarily coincide with that of the publishers.

GENTLEMEN'S AGREEMENT

Editor "A.R.," Dear Sir,

I write re VK3BG's letter of October on the abolition of c.w. He refers to the "Gentlemen's Agreement" as "an agreement which, to most, never existed." Is he presenting the viewpoint of the non-gentlemen?

The rest of his repetitive letter—I refer to his earlier one on the same lines—was dealt with in previous correspondence.

—J. C. Redman, VK2JE.

Editor "A.R.," Dear Sir,

I wish to protest against your action in printing the letter by Roth Jones in October "A.R."

You saw fit not to print a letter of mine in reply to Roth's previous correspondence on the abolition of c.w. from the Amateur bands, stating that "correspondence is now closed."

This I was prepared to accept, but I am not prepared to accept you permitting him to re-open the subject again under the guise of "abolition of the Gentlemen's Agreement" and uses it to raise the previous subject of the abolition of c.w., on which "correspondence is closed".

Unfortunately the Postal Department did not deliver my "A.R." until today, too late for material in Nov. "A.R.," but I feel very strongly about this discrimination.

—F. T. Hine, VK2QL.

Editor "A.R.," Dear Sir,

The Gentlemen's Agreement is recognised throughout the world and should only be altered after a world-wide investigation proves operating habits have changed away from c.w.

After operating a.m., s.s.b., and c.w., it appears that s.s.b. is replacing a.m. on some bands, but not replacing c.w. and should eventually take over more of the a.m. sections.

We have more room for phone here than in U.S.A. and when its Ham population of over 200,000 is considered no wonder many Ws, including new Hams, turn to c.w.

A point often overlooked in favour of telegraphy—it can be regarded as an international language enabling contacts with distant Hams who have not mastered sufficient English to use phone.

We should consider c.w. operators in other countries who are forced to use c.w. for many reasons and give them the opportunity to contact Australia, this would hardly be possible on 7 Mc. if local phone nets spread out all across the band.

Perhaps c.w. should be encouraged on bands such as 7 and 14 Mc. where we have so little room, s.s.b. requires the channel space of many c.w. stations and to ban c.w. would be one way of restricting the number of available operating channels. There should be room for all phases of our hobby.

Hand sent telegraphy may be on the way out for commercial traffic, but even here is often replaced by another form of telegraphy, such as teletype. C.w. still brings pleasure to thousands of Hams throughout the world and proves a reliable method for long distant work through interference. Take a listen any evening and compare the readable c.w. DX stations in the first 50 Kc. of the 7 Mc. band with so few readable Amateur DX stations getting through on phone throughout the remaining 250 Kc.

International DX contests usually show twice the number of c.w. logs are received to phone logs with the resulting higher scores. Check our DXCC list to find c.w. membership outweighs phone. To date it is hard to find any evidence that c.w. is outmoded. Yes there is still plenty of c.w. activity on 7 and 14 Mc. and no law to prevent us using a.m. or s.s.b. on the first few Kc.—only Good Manners.

—Les Brennan, VK4XJ.

Editor "A.R.," Dear Sir,

In view of Mr. Roth Jones' remarks regarding c.w. operation in the Amateur bands, I feel it would be rather appropriate to quote an extract from the R.S.G.B. Bulletin, August 1961, page 75. The Bulletin says: "A recent survey by A.R.R.L. revealed that the preferred mode of operation of U.S. stations, expressed as a percentage of the total, was—c.w. 34%, a.m. 28%, s.s.b. 23%, r.t.t.y. 1.5%, f.m. 0.3%, and others including t.v. 0.6%." It would appear that 13.2% have no preferred mode of operation.

The Bulletin continues, "It is reported that there are now 217,102 current Amateur licensees in the U.S.A." 34% of 217,102 is 73,814. I suggest that 73,814 Amateurs is not inconsiderable.

I feel little comment is necessary, except to suggest that his friend in the Australian Market Research Department could be more usefully employed elsewhere.

—Cyril Rylatt, VK5TC.

Editor "A.R.," Dear Sir,

I feel that some comment should be made on the subject of dividing the bands into phone and c.w. sections.

Almost all the other Amateurs in the world are only allowed to use phone in certain sections of the various bands, under the terms of their licences. In this country a Gentlemen's Agreement only restricts the use of phone to sections other than the low frequency end of each high frequency band and so far this Gentlemen's Agreement has worked very well. It so happens that the divisions of our agreement fit in well with those in force overseas.

I think I am one who can claim to be neither a phone or c.w. man; I run skeds on both, I've won contests using each mode, and to me it is obvious that we are fortunate in being able to use either mode as we wish.

Phone is ideal for the homely side of Ham Radio—comparing notes with neighbours, idle nattering across town, and regular skeds with old friends. Given a good circuit it affords a more personal means of contact and a quick exchange of information.

C.w., unfortunately, requires the acquisition of a skill in operating—this does not only mean being a telegraphist, a whole lot of other qualities are required to be cultivated also—an appreciation of exactly when and on exactly which frequency to call—at which speed, and for how long, to send to the other operator, taking into account the band environment, propagation conditions at both ends of the circuit, and your judgment as to what he can cope with anyway.

C.w. will give a whole range of operating conditions from battling in an almost hopeless dogpile to peeling off a string of Yanks at whatever speed one chooses. For some reason or other, once proficiency has been achieved, it is a most releaxing pastime. The wide variety of operators and signals encountered lends flavour to a most satisfying experience. You can sense the wild excitement of the novice at the other end as he works his first VK at five words per minute, or you can exchange snippits of "info" at breakneck speed with the "big guns". Somehow, on c.w., the inanities of the average contact don't seem so obvious, and QSOs are more business like, certainly more complete. It is a great shame that most of our casual public listeners judge Amateurs in general by what they hear on phone.

To have to do without one mode or other would be a great loss, but it is inherently very difficult to work close to a phone station and so we should honour our Gentlemen's Agreement and keep out of the c.w. bands when on phone.

We should beware of "market surveys," "consumer polls" and the like, conducted by "business consultants" or "research agencies," and use our own judgment according to what we can hear with our own receivers. I am not suggesting, of course, that the figures quoted in your columns a few months ago were the normal "figures-to-suit-the-boss" that these people are so facile in producing.

Re-read, sir, your Editorial in the October issue, note the results of unilateral action by one Amateur body in this respect, and leave the bands alone.

Before anyone quotes a letter I wrote to you shortly after the war, and in which I wrote that "c.w. operators can be turned out like sausages, and from similar material," I must say that I was obviously a very inmature little boy at that time.

—"Tubby" Vale, VK5NO.

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Sub Editor: BUD POUNSETT, VK2AQJ,
6 Alice Street, Queanbeyan, N.S.W.

ADDRESS CORRESPONDENCE FOR THIS PAGE DIRECT TO THE SUB EDITOR

SUGGESTED OPERATING RULES FOR SINGLE SIDEBAND WORKING

FROM ALAN H. REID, VK3AHR

OPERATING FACILITIES REQUIRED

(a) V.f.o. operation is essential.

(b) The v.f.o. must be stable.

(c) The station receiver must be reasonably well calibrated, sufficiently so to give a frequency reading preferably to within 1 Kc. Alternatively, a quickly-readable frequency meter is necessary.

(d) One switch operation, preferably of the "press-to-talk" type, is required. Vox operation is, of course, permissable, but by no means essential.

(e) Accurate and quick setting of the transmitter on to the receiver frequency is necessary.

PREFERRED OPERATING METHODS

(a) **General Comments.** Except under special circumstances, all stations taking part in the QSO should be on the one frequency. This is important as it leaves more channels clear, facilitates break-in of an additional station when desirable, and allows the operator to know almost everything that is going on right through the QSO.

(b) Use only the sideband (upper or lower) accepted as being standard for the particular band in use.

(c) Before first transmitting after a period of shut-down, select your channel carefully, after checking over the band. Listen on it for say half-a-minute before transmitting and, if the band is really busy, first say "Is this channel occupied?" or "Will I be causing any interference if I use this channel?" Look out for, and be agreeable to, any request to move after starting your first call.

(d) **Calling CQ.** "Hello CQ" three times, with your call once, followed by "listening" or "standing by" is an efficient and adequate call. Perhaps "listening on this frequency" or "standing by on this frequency" is slightly more desirable. If, for some special reason, you want the other man to answer on a dif-ferent frequency, say "Listening on —— Kc." Listen on the frequency for say 10 seconds before repeating. An answering station should give your call once, his call once and some such remark as "Do you copy?", immediately after you say "listening".

(e) **Working a Station. Keep the overs short.** Don't exceed say 15 seconds, without letting go the tx and having a listen, however brief, on the frequency. The other fellow will probably want to comment without delay on your remarks, or he may even not be copying you due to the arrival of QRM on the channel. Actually, the "over", meaning a series of comments with identification calls both before and after, is now redundent and should be scrapped.

Normally, never transmit more than, say, 30 seconds without letting the other fellow have a say. As in c.w., don't send "double", i.e. don't repeat your words, unless your report is Q4 or less, or you know that it will be appreciated by the other party.

Never cover more than one subject in one transmission. The old method of covering 20 subjects during a 5 or 10 minute single transmission, replied to by 20 corresponding comments, again during one transmission from the other party, should be dropped as it is completely antiquated in sideband working.

If you find a clear channel, initiate a call and are answered by someone, he should vacate the frequency to you when the QSO is finished. If, at the end of the QSO, someone comes on and calls him, he should say "let's move off this frequency to —— Kc." Of course, if you announce that you are closing down, they will continue to use that channel if they wish to.

(f) **Round-Table Operation.** Although often very pleasant, I've heard many good two-way QSOs completely ruined by a break-in station. Never try and break-in to a QSO unless you can copy all parties to it Q5. Listen to the conversation for a short while to gauge if an addition to the QSO would really be welcome. For instance, don't try and break-in if they are in the middle of a subject of discussion, even if it means waiting for quite a while, or if they are two old friends obviously enjoying a private two-way chat. Don't break-in unless you can contribute something to the QSO. If you just break-in for a report, do so with due humility. This practice is, I suppose, admissable, but only if an appropriate moment in the QSO is selected and if it is made snappy. (Don't include an unsolicited, detailed description of your rig, your location, and a weather report.)

In a round table, it is generally desirable to say to whom you are "passing it", although good operators in a round-table just come in and out, without confusion, whenever they have something to contribute.

It is not your **right** to be acknowledged and allowed to enter an existing QSO. However, if the above rules are followed, you will usually be welcomed in by both parties.

Don't "identify" unnecessarily. At the start and the finish of a QSO is mandatory, as well as at the intervals specified by the Regulations. There is usually no need to keep identifying every half-minute or so, unless conditions and your signal report suggest this as "tuning chatter", or you know someone else will be looking for you on the band and you wish to make it easier for him to find you.

When finishing a QSO, don't linger! Two "finals" are, I suppose, natural, but three or more are unnecessary. You will naturally listen on the frequency for a few seconds after finishing a QSO and before switching off.

VHF NOTES

(Continued from Page 17)

acknowledge calls made to him, and his sigs eventually faded out, leaving a disappointed 6RY. From this it would appear that David's request to keep the first 100 Kc. segment of the band clear is a waste of time anyway because his rx does not hear stations, hi! This is just a shot at David for his comments in Oct. "A.R." notes.

VK6VV came through on 50 Mc. about a fortnight ago and this is only the second time he has broken through from Geraldton. These types of things most certainly keep the interest in the bands. Hope to hear you again very soon Brian.

The last tx hunt was on 6 mx and the antennae used were quite amusing. One ex-VK3 type rolled up with a comical quad perched on the front of his Minor, complete with mum's broom for a support. The winners were Lance 6ZBK and Gill 6ZBW, and although 6RY did not arrive on the scene until about third or fourth, was second in. Next hunt could prove to be interesting as it will be our Christmas outing and speculation as to what it will be is quite keen. It probably will be hand-held gear operated by XYLs and YLs without any assistance from other halves.

Well this is about all for now, except that we would like to congratulate Bob 6ZCY on his recent marriage. Please remember the v.h.f. expedition to Cape Naturaliste by Kevin 6ZCB and Stan 6ZAS during January.—6RY.

TASMANIA

Although rather belatedly, the 6 mx band finally did the right thing on 16th Nov. with an opening to VK4 and northern VK2. This opening was rather patchy, but some of the newer stations were able to contact their first DX. A repeat performance was staged on the next evening when, once again, we had things all our own way without the usual opposition from VK3.

Again, on 21st Nov., VK5 and VK2 (Sydney area) were worked and a lone VK6 heard.

The highlight of the month was the Group's operation on 2 mx from Mt. Wellington, behind Hobart, elevation 4,166 ft. This is the first time we have been able to use this type of gear and results were most gratifying. Five VK3 stations were contacted—four of these were portable field day stations—and four northern VK7 stations, who cannot be easily contacted from Hobart, provided interesting QSOs.

These contacts seem to be basical, ground-wave communication—distances of 350 miles do not seem to be excessive, especially when coupled with a total height advantage of 6,000 ft. The fact that no Melbourne stations were heard seems to support this.

Although we sepnt a worrying 90 minutes getting gear set up—everything possible seemed to go wrong—we were not perhaps so bad. Out host t.v. station had to go off the air to change four rectifiers, or perhaps we should not mention that!

Although we were in the next room to the t.v. gear, we did not effect it in any way and a half wave co-ax stub cleared up most of the interference we experienced on 2 mx band.

The effort was not, however, the easy proposition it might seem to others. This was brought home to us when, whilst lowering our 24 ft. long beam at 2030 hrs. in a howling, icy, 30 degree gale, a support-wire broke, sending beam and tower hurtling towards all and sundry.

However, after groping our way through a six ft. visibility mist for a half mile on the way home, we still considered it worth the effort. But we will definitely not be repeating this a couple of times per week as suggested.

Now, more than ever, we are determined to work out of Hobart over our mountains (not hills, if you please!!) 7ZAI is working on a parametric amplifier and, in conjunction with 7ZBE, trying out passive repeaters. Believe that Col 7LZ in Launceston has either been hearing or working 3ZCG very consistently during mid-November.

New stations on 2 mx in the south are 7ZZ and 7KC whose possible use of c.w. should prove quite advantageous.

The next meeting of the V.h.f. Group will be on 18th Jan. and all interested parties are invited, particularly any interstate visitors who happen to be in the "Holiday Isle".

Rumour has it that Bryan 7ZBE, our Secretary, has applied for a job in VK5, as yet result unknown.

Following the publicity given to 10,000 Mc. gear, interest in this is quite high in southern Tasmania. One unit has been obtained and more are expected. The situation of some of our higher mountains seems to be ideal for work on this band.—7ZAO.

W.I.A. D.X.C.C.

Listed below are the highest twelve members in each section. New members and those whose totals have been amended will also be shown.

PHONE

Call	Cer. No.	C'nt-ries	Call	Cer. No.	C'nt-ries
VK5AB	45	266	VK6KW	4	206
VK6RU	2	256	VK3ATN	26	204
VK6MK	43	250	VK4HR	12	192
VK3AHO	51	232	VK4RW	23	184
VK4FJ	21	221	VK3BZ	3	176
VK3WL	14	211	VK3GB	50	171

C.W.

Call	Cer. No.	C'nt-ries	Call	Cer. No.	C'nt-ries
VK3KB	10	294	VK4HR	8	218
VK3CX	26	284	VK6RU	18	215
VK4FJ	29	264	VK3XU	48	213
VK3NC	19	250	VK7LZ	17	212
VK3FH	15	226	VK3YL	39	211
VK3BZ	6	222	VK9XK	41	204

Amendment:

VK3ARX	66	167	VK3AX	68	126

OPEN

Call	Cer. No.	C'nt-ries	Call	Cer. No.	C'nt-ries
VK2ACX	6	289	VK3HG	3	241
VK6RU	8	271	VK3AHO	76	234
VK4FJ	32	267	VK4HR	7	233
VK3NC	77	255	VK3BZ	4	231
VK6MK	74	254	VK3JA	43	229
VK2AGH	83	245	VK3WL	45	225

Amendment:

VK2APK	82	145

FEDERAL AND DIVISIONAL MONTHLY NEWS REPORTS

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(SEND CORRESPONDENCE DIRECT TO DIVISIONAL REPORTER NAMED AT PARA. END)

FEDERAL

FIFTH JAMBOREE-ON-THE-AIR

20th and 21st OCTOBER, 1962

The following letter was received by F.E. from the Director, Boy Scouts' International Bureau, 77 Metcalfe Street, Ottawa 4, Canada:

Dear Sirs,

As you will know, the 4th Jamboree-on-the-Air was held over the two days 21st and 22nd October, 1961, and, from the reports so far received from all over the world, it proved very successful indeed. The event has two objects, the first being to enable Scouts everywhere to make contact with other members of the Movement overseas, to talk to them and learn something of their problems and activities. The second object, perhaps the more interesting from your point of view, is to interest them in Amateur Radio, and I am glad to say that we know of quite a number of new Hams who first "caught the bug" at a previous Jamboree.

We fully realise that this annual event could not take place without the co-operation of the Amateur Radio fraternity, and Scouts everywhere owe them a great debt of gratitude for their willing co-operation and advice. **Obviously I cannot thank each one personally and so I would like you, if you would, to pass on my sincere thanks through the medium of your journal.**

As indicated above, we propose to hold the 5th Jamboree-on-the-Air over the week-end 20th and 21st October, 1962, from 0001 hours on the 20th to 2359 hours on the 21st, both times being Z time or GMT. I very much hope that this does not clash with any event being organised by your association. If it does, I should be grateful if you would advise me without delay.

with renewed thanks,

(Sgd.) D. C. SPRY, Director.

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FEDERAL QSL BUREAU

The expected activity by the Elizabeth Radio Club on Nov. 25 did not eventuate, due to the loss of several of the more active members and because other members did not complete rebuilding plans in time.

The Taiwan American Radio Club publicise their BV award. Non Asian stations must contact two BV stations after Jan. 1, 1961. New applicants must indicate they desire the basic certificate and submit certified log extracts, together with three I.R.C., to Taiwan American Radio Club, Box 24, U.S.T.D.C., A.P.O. 63, San Francisco, Calif.

The East Bay Section of A.R.R.L. announce their "SCM-73" award for contacting SCM's of A.R.R.L. after Jan. 1, 1960. The award is issued in six classes, the minimum being Class 5 for contacting 15 SCM's. Applications with either QSLs or certified list and I.R.C. to cover return postage to W6OJW, B. W. Southwell, SCM East Bay Section A.R.R.L., 200 S. Seventh St., Dixon, Calif., U.S.A.

The Award Hunters' Club reports steady growth in membership and plans to resume its monthly bulletins early in 1962. Each monthly bulletin will contain 20 sheets of award rules and details. The annual fee is 24 I.R.C. or the equivalent of three dollars. The Hon. Sec. is OH2YV, John Velamo, Isokaari 4 B 30, Lauttasaari, Helsinki, Finland. Further information may be obtained from this Bureau.

A Russian Call Book has been published by the Polar Bears Radio Club (Sweden). It lists 1,000 stations from all rare U districts. Price is 20 I.R.C. or two dollars. The Club QTH is SL3ZO, Sven Elfving, Solgardsgatan 15, Ornskoldsvik, Sweden.

The PZK is staging the "Millenium SP Contest 1962" for c.w. from 2000z April 7 to 2000z April 8, 1962, and for phone 2000z April 14 to 2000z April 15, 1962. Further information from this Bureau.

A further change in the A.R.R.L. QSL set-up is W9MSG, Ray P. Birren, 702 Spring Road, Elmhurst, Ill., U.S.A. He replaces W9DSO and handles W9-K9 call area.

Ray Jones, VK3RJ, Manager.

AUST. CAPITAL TERRITORY

Activity in the VK1 area has shown a considerable increase over the past few months—so much so that moves have been made for the A.C.T. to become the VK1 Division of the Wireless Institute of Australia. This has now been placed on the agenda for the Federal Convention in Perth at Easter and A.C.T. Amateurs are very pleased with the support they have received from the VK2 Division in sponsoring this move.

Action has also been taken to have VK1 as a separate call area for all awards and contests and A.C.T. Amateurs hope that the Federal Convention will agree to this move and allow the A.C.T. to take its proper place in these activities.

Canberra is the fastest-growing city in Australia these days and this growth is particularly noticeable amongst the Ham fraternity. Some of the new Amateurs are local lads who have completed their exams for the A.O.C.U. but a number are old Hams who have migrated here from VK2 and VK3. If the present growth continues, in twelve months' time there could well be twice the number of Amateurs that there were twelve months ago.

On behalf of the local lads a warm welcome is extended to these newcomers and it is to be hoped that they will soon become active and help eliminate the idea that VK1 is rare DX. Up to date information on local activity for the newcomers particularly, but also for anyone else interested, is available at 8.45 a.m. each Saturday on about 7050 Kc. when the VK1 weekly round-up operates and when it is quite usual to have up to a dozen VK1s and some VK2s from just across the border discussing and planning local activity.

It is proposed shortly to introduce a net possibly on Wednesday evenings on 2 mx and this should provide a stimulus to 2 mx enthusiasts in southern N.S.W. as well as in the A.C.T.

At the Annual General Meeting of the Canberra Radio Society, the annual report showed that there had generally, throughout the year, been a great increase in Amateur activity. In particular this is noticeable in the two new radio clubs in the Territory—VK1LS at Lynehame School and VK1BS at the Police Boys' Club. Operating under the direction of Education Officer, Ken VK1KM these clubs have about 60 active members who will, it is hoped, maintain their interest and eventually add to the local activity under their own call signs. The Society is particularly pleased with the local effort in the R.D. Contest when 18 VK1s were on the air and there are hopes that at least one of the top scorers will be a VK1. Next year, with the growth of activity it should be possible to have at least 25 VK1s in the Contest and as a separate call area and perhaps a separate Division, local enthusiasts could be rewarded with a win.

W.I.C.E.N. activity of VK2 Division has been supported during the year and it is expected that a VK1 W.I.C.E.N. group will commence operation shortly. The Government has proposed the establishment of an A.C.T. Civil Defence Organisation and local Amateurs will be taking part in this. Liaison will still be maintained with VK2 W.I.C.E.N. net because of the common interest.

The Society station, VK1ACA, was in operation during the Jamboree-on-the-Air and about 40 Scouts made contact with various parts of the world and exchanged views.

A high-powered 2 mx station is being built by the Society under the direction of Vice-President Eddie 1VP. Shortly, it should be putting out a nice loud signal from a 12 element phased array and we have hopes of regular contacts with Sydney and perhaps with more distant places.

On the personal side we hear that Ted 1AOP has taken an XYL. She has not been sighted at any Society activity as yet or heard over the air, but we live in hopes that this move has added yet another enthusiast and not lost us an Amateur.—1DG.

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NEW SOUTH WALES

GENERAL MEETING

The monthly meeting of the N.S.W. Division was held at Science House, Gloucester St., Sydney, on Nov. 24 and despite the inclement weather, which has been experienced in Sydney for some weeks, the attendance was satisfactory. The meeting was opened by the President, Bill 2YB, at 8 p.m. and the necessary formalities were dispensed with.

The lecture arranged for the meeting was given by three members, Harold 2AAH, Syd 2SG, and Ted 2ACD; the subject being "Cubicle Quads". The subject was dealt with from both the technical and the practical angles and a number of questions were posed by members of the audience. The vote of thanks was moved by Max 2GE.

ANNUAL CONVENTION

The 12th Annual Convention of the N.S.W. Division will be held on the Anniversary Week-end in January from 26th to 28th inclusive. The opening event will be the general meeting for January, which will be held at Science House, Gloucester Street, Sydney, commencing at 8 p.m. at which a topical interest lecture has been arranged. The lecturer will be Bob Wilson, of Stromberg-Carlson Ltd., and his subject, "Linear Amplifiers". We are expecting a large roll up on this occasion, especially those country visitors who are in town, so you will be well advised to come early.

On the following day, Saturday, a Dinner will be held at "Ivanhoe," 49 William Street, Hornsby. The charge for this Dinner will be 25/- per head and bookings are being received by Ted Whiting, 16 Louden Street, Five Docks, N.S.W. Full details of the evening will be found in your Bulletin.

A Field Day will be held on the Sunday with features for all. This will be at Quarry Road, Dural, the home of VK2WI and events will be arranged for all—mobiles, v.h.f. enthusiasts, demonstrations, competitions and a heap of run for all the family. Disposals will be there in force, also.

So fellows, make this week-end a must, bring the family and really have yourself a day, meeting the other fellow and winning some of the fabulous prizes which will be there for the winning. See you at the Convention?

Many thanks to those who have assisted in the compilation of material for these notes throughout 1961, and to all a very Happy New Year.

HUNTER BRANCH

Although no registered plumbers were present at the Nov. meeting, there was no shortage of pipes and fittings. I refer, of course, to the two metre lecture and the associated equipment. The man behind the beam was Major 2RU, ably assisted by Fred 2ALA and Bob Spears, all members of the Central Coast Radio Club. Local members were entertained and informed on some of the mysteries of v.h.f. A most impressive array of gear was there to be seen, including a miniature transistor power supply.

Although I forgot to state earlier, there were nine visitors, seven associates and sixteen members to watch all this hilarity. As if to add insult to injury, a vote was taken during the meeting as to the band to be used for Monday night broadcasts. After discussing the relative merits of 40, 80, 2, s.s.b., d.s.b. and the proverbial inverted ear trumpet, it was decided that Shannon, our friend from the Bay, be consulted on the matter. At this juncture, some uncouth wag from the two and nines suggested that the aforesaid gentleman be asked to do the broadcast and the others allowed to listen on what band they would. He said they'd still hear him. Whether or not this suggestion was put into practice I cannot say, but the latest broadcast I heard sounded like a mixture of the lot, and, after rapidly winding all about the place to follow proceedings, I gave up and listened to the wireless. So there. Ratio of work to listeners in this instance, 13.3 to 1.

Did I diverge? Well to get back to the meeting. The generous gift of no less than four 108 tx-rx's was acknowledged. These came to the Branch by courtesy of the Tamarang Shire Council where they had been used for bush fire working. Our good friend, Ray 2HC remembered the poor Hunter Branch and suggested that we use these to raise some money for our depleted funds. Some very spirited bidding ensued and the upshot was that, after a personal battle of the £ s. and d. between Foster and me, the final price was agreed upon and the display model went to yours truly. This finally came to the hands of one of the

Hamburgers, who no doubt will put it to good use. It's not every day that a philanthropist is detected in our midst. (Takes bow.) I am led to believe that the Toronto Rommel finally purchased one by private treaty.

At last our well informed brethren of the Publications Committee have realised that it is no use at all sending copies of "A.R." to the weak billiards players of the community. Latest member to be ostracised in this way is the Hon. member for West Wallsend. Both he and an aforementioned billiards champion visited my humble abode this Saturday past for the express purpose of borrowing my magazine. Of course I always pay my fees on time. And while on the subject of fees, an innocent member approached 2ZL at the meeting and asked what it was worth to have the low-down on "Getting My Geloso Going". Our gentleman friend wishes it to be known that any information, if and when found, will be dispensed free, gratis and for nothing. There is absolutely no truth in the rumour that the January meeting is to include a lecture by Bill on signal shifters. Fact of the matter is that no January meeting is to be held. I did so want to hear how it (the t.v.i.) could be reduced.

The local antenna crew, Les, Bruce, Max and two others, who shall remain nameless, but who acted as the brains of the party, visited the Teralba QTH of Harry 2AFA and lowered, painted and re-erected his beam antenna poles. A large 20 mx signal from this location should be heard in distant places soon again. Harry also has donated some equipment to the Hamburgers and great has been the delight of those concerned. Thank you, Harry. Thanks also to Mrs. 2AFA for the refreshments enjoyed by the weary workers. Any antenna work swiftly and expertly executed by skilled personnel, apply to the undersigned. The rain has prevented work on Belmont Bob's farm as promised, but by the time this appears another mighty array should be visible to all travellers on the Pacific Highway. Anyone some red lights for sale?

A man who is purported to have once carried £1,000 worth of test equipment in **one** of his cars to give a lecture demonstration will be visiting the branch meeting in February. No, he's not Santa, you've already had him. I'll let you in to more of the secret in the next notes. Suffice to say that the next meeting is in February, on the ninth to be exact, at the usual place, University College of N.S.W., Tighes Hill, at 8 p.m. As there will be another issue of these widely read notes by then, you may expect further details. And seeing that the mulberry leaf collector will have returned from the land of everything else by then, or even by now, you may expect a hearty welcome in his hostelry on the third Wednesday of each month from now on. Whether this includes January I know not, so listen around and you'll hear no doubt what's happening. Ta ta for now. 73, 2AKX.

BOORAGUL HIGH SCHOOL RADIO CLUB

The new components for the tx have arrived and, with the assistance of salvaged parts from two AT5 rigs and sundry others, the new 40w. station should soon be on the air. Some of the boys are now working full time on this project. We have to thank all those who have so generously donated equipment for the club station and especially Chris 2PZ and Bill 2ZL. It is hoped that the signal emitted will reflect the generosity of our benefactors.

The long-awaited printing of QSLs has eventuated and cards have been sent to all those who have contacted the club. Should anyone have been missed, please let us know and we will correct the position.

In line with the offer by the Canberra School Club, Booragul also has various printed sheets available on theory. These include capacitors, a.c. theory, the motor principle and tuned circuit theory as well as some others. Any school club requiring any of this free material is asked to forward requirements to the station as per call book QTH. Best wishes for all school clubs during 1962. 73, 2ATZ.

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VICTORIA

THE ROOMS AT VICTORIA PARADE

As you know by now, the application we made recently to the Board of Works for a permit to use the rooms was opposed by the Melbourne City Council and the board has seen fit to refuse our application.

Following the rejection of our application, an appeal was made to the Minister of Local Government towards the end of November. This appeal is the last course of action open to us and the office-bearers of the Institute have pursued a line of action with this ultimate step in view. Whatever the outcome of this appeal we must realise that **everything** that could have been done **has been done!** Anyway, we await the outcome of this appeal and for the information of members the following summary of the proceedings at the appeal is published here.

The Wireless Institute of Australia, Victorian Division's appeal came on for hearing on Tuesday, 21st November, before Messrs. Campbell and Corrigan, two delegates appointed by the Minister to hear the appeal. Mr. B. M. Sneddon, instructed by Michael Owen, for Messrs. Pavey Willson Cohen and Carter, appeared for the Institute. Mr. Don Mack appeared for the Board of Works. There were no appearances by or on behalf of the Melbourne City Council or the three persons who had lodged objections to the Melbourne and Metropolitan Board of Works to a permit being granted to the Institute. Mr. Mack informed the Board that the City Council and the persons who had lodged objections, had been notified of the appeal. The Chairman stated that no correspondence had been received from either these persons, or the Council.

Mr. Mack stated that the Board was opposed to the permit being granted as it was a residential neighbourhood and zoned as such by the Board under the Planning Scheme. He stated, however, that he did not consider that parking was a relevant consideration in determining the appeal, as there was ample parking at the time it was needed by the Institute. He conceded also that there was some existing non-conforming use in the immediate neighbourhood.

Mr. Sneddon, for the Institute, submitted that the use sought was a beneficial one and referred to the improvements made to the land by the Institute. He outlined in detail the nature of the use to which it was desired to put the premises. He further suggested that the nature of the locality (which consisted generally of houses with very small frontages having separate ownership) was such as to be unsuitable for residential purposes. He also relied on the presence of the Victoria Brewery, the adjacent Drill Hall, and the factory at the rear of the subject premises, in his argument.

Copies of the Institute's magazine, "Amateur Radio", the Institute's solicitor's original letter to the Board of Works, the Articles of Association and Memorandum of the Institute, and the results of a survey conducted by the Institute into parking in the immediate vicinity, were handed to the Board.

It is expected that the decision of the Minister will not be known for some time. Mr. Sneddon requested that the decision be expedited and referred to the heavy additional expenses incurred by the Institute as a result of these proceedings. The delegates of the Minister indicated that they would recommend that an early decision would be made.

GENERAL MEETING, 7th FEBRUARY, 1962

Two short films by Mullard, of exceptional interest, will be shown at this meeting. It is also intended to discuss at this meeting the proposed Articles and Memorandum of a Federal Company, advance notice of which was given at the State Convention. This is of considerable importance, as it affects the whole Federal structure of the Institute. The proposed changes will be explained, and as many members as possible are urged to attend, in order that their views may be obtained.

W.I.A., N.S.W. DIVISION

TWELFTH ANNUAL

CONVENTION

★

A FIELD DAY

will be held at

QUARRY ROAD, DURAL

on

SUNDAY, 28th JAN., 1962

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Make sure you attend the Function of the Year!

JAMBOREE-ON-THE-AIR 1961

The Boy Scouts' Association, Victorian Branch, would like to sincerely thank all the Victorian Amateurs who so willingly co-operated with Scout Groups to make the 1961 Jamboree-on-the-Air such an outstanding success.

The number of Amateur Stations and Scout Groups participating exceeded all expectations, with the result that more people were "on the air" on the Amateur bands than ever before. In spite of the interference, static, and poor band conditions, the spirit pervading the event was wonderful. Sincere appreciation is expressed to those Amateurs who invited members of the Scout movement to their homes; the hospitality received will long be remembered. Special mention must be made of those Amateurs who were responsible for setting up portable stations in Scout Halls and Camps. Their efforts were well repaid by the interest shown, and it is hoped that this type of participation will set the pattern for future events.

It is doubtful whether any previous event has provided more publicity, potential Hams, public relations, and population of the bands.

Participation:—

110 Amateur Stations were known to have been operating in Victoria, representing over 150 Scout Groups and Guide Companies.
109 log sheets were received giving details of 91 stations and 136 groups.
2285 members of the Scout Movement visited these 91 stations.
1181 contacts were made with other Amateur Stations.
1105 of these were Group to Group contacts.
122 overseas contacts were made.
37 different countries were contacted.

Most activity was inter and intra state. Amateurs who contacted overseas stations were disappointed that very few in other countries knew anything about the event. It is hoped that this will improve in the future.

The above figures show a wonderfully successful "Jamboree". The increasing interest is evident as, compared with last year, three times the number of Radio Amateurs took part, and they were visited by six times the number of members of the Scout Movement.

As State Co-ordinator for the Boy Scouts' Association, I would like to gratefully thank Lin 3ARL, Arthur 3AUL, Jim 3ZK, Ewan 3WC, Jim 3ABT, Bill 3AKW, and Gordon 3TH for their untiring help as assistant co-ordinators.

—John Woodburn, VK3AGD.

SOUTH WESTERN ZONE

The usual cry of no information from zone members. The main news is greater action on the v.h.f. bands in Ballarat and Warrnambool. 50 Mc. is the most active this end of the zone, why, I do not know, when good DX is going begging on 144 Mc. More beams should be turned this way as 3ZER is portable just north of Port Campbell, on a Soldier Settlement project. He is a sitter for me at 25 miles. The six metre gang are active most nights and have had a couple of break-throughs to VK4.

Bill 3WK is sporting anew call (formerly 3ZFG), also a new son, so Shirley is not such a wireless widow after all. John 3ARJ busy on the farm so radio is in second place. He will be on 2 mx before these notes are printed. Peter 3FX mobile happy after squash and table tennis. John 3ZDM back again; he would get more contacts if Julie stopped on the mike. Kevin 3AKR on six mx with a pair of 808s. How's the t.v.i. with it, Kev.? Eric 3ZL putting strong sigs down here on 2 mx, also heard 3CI on the last field day. Well that's it, hope Santa brought a bit more than you thought he would. 73, 3ANQ.

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QUEENSLAND

With the coming of the Festive Season we wish all a Merry Christmas and a Happy New Year.

At the November Council meeting a letter of resignation from Bill 4WX was received. Bill, who handled capably the job of Secretary, was forced to resign due to ill health and is unable to take an active interest in Council without risk of further illness. In keeping with their policy of trying to even out the work on Council, the job of Secretary was taken over jointly by Peter 4PJ and Pat 4KB. It is with regret that we see Bill resign from Council as he was a very active member, but the reins are taken over by two enthusiastic members.

NEW RELEASES for the NEW YEAR from WARBURTON FRANKI

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New principle. Wires clip in with push-button release. Two styles are available in five colours each.

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7/9 per doz. plus tax 25%.

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Also similar to 2004A, but with spade connector—
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new **4-WAY POLARISED LINE CONNECTORS**

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45 μA. movement.

Six a.c. volt ranges: 2.5, 10, 50, 250, 500, and 1,000 at 8,000 o.p.v.

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Five d.c. current ranges: 50 μA., 0.5 mA., 5 mA., 50 mA., 250 mA.

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Bits 3/16" & 7/16"—**24/-.**

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Sales Tax exempt.

new **VOLTAGE DOUBLER TRANSFORMERS**

240v. Primary; 136v. r.m.s. Secondary at 25 mA., 6.3v. at 1.7a., **20/-** plus tax 25%.

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Output Power: 45 watts.
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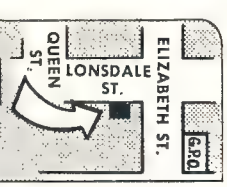

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The Nov. general meeting was held in the usual rooms with more than 40 members attending. An interesting lecture on Radio Propagation was given by Dr. Thomas, of the University. This lecture was given in Ham language and was understood and enjoyed by all. Slides were shown to illustrate the different aerials used and the log periodic antenna evoked a lot of interest and queries. Raised also at the meeting was the ever recurring question of a permanent home for 4WI and club rooms of our own. Once again, no constructive move has been made. Applications were also called to members to fill positions on the P.M.G. Advisory Committee. A raffle of gear was conducted by Evan 4EF in his capacity as disposals officer.

A special Council meeting was also held on the general meeting night and at this meeting 4PJ and 4KB were appointed joint secretaries. Also Stan 4SA was appointed station manager with the placing of 4WI's Geloso tx at his home. It is with great pleasure that we see Stan in harness again and once more taking an active interest in 4WI activities.

Reports are still coming in on the Jamboree-on-the-Air and all praise the work done by the Amateurs. Further participants were 4CI, 4QJ and 4ZB. 21 Mc. appears to have been the best band for DX work during the event as 4ZB had 17 overseas QSOs out of 22 contacts on this band.

One tangible result of the Amateurs' participation in this event is that as a result of the enthusiasm shown by the Scouters, the Oakleigh Scout Group have formed a Radio Club with the station call sign of VK4OS. At present Gordon 4XG is the qualified operator, but a parent and a Scouter are doing a course to obtain the A.O.C.P. A boost was given to the club by two donations, one was the offer to provide a high quality s.w. rx from a group of parents, while one parent donated a high quality tx. Here is one station that will be on the air for the 1962 Scouts' Jamboree-on-the-Air".

Gordon 4GH went to some trouble to set up his station for the Jamboree, but unfortunately no Scouts turned up. Though the Jamboree was successful, it is apparent that closer liaison between the Amateurs and the Scouts before the next Jamboree will provide a full roll up at all participating Ham shacks.

SOUTH COAST

All Amateurs, no doubt, will be interested to hear that George 4GG has successfully broken into t.v. Having won a portable barbecue with a question for a quiz programme, he was flown to Sydney and appeared in a show there. He added further to his laurels by winning another prize—a custom-built suit. He is now the best dressed Ham on the band.

Holidaying down this way and mobiling as well is Brian 4UW. May the weather be the wonderful weather of the Gold Coast and that the family and yourself have a most enjoyable time.

Southport Radio Club, 4SR, is beginning to show more activity, new members being enrolled and classes starting again. The enthusiasm of a number of the younger members has had to be restrained on account of studies for school and university examinations. The President, Bob Kyle, is busy constructing mobile gear which he is planning to cover all bands. Bill 4WS is also on the mobileers' band wagon and is busy constructing—with many curses thrown in—a transistorised power supply.

CAIRNS

Another member of 4ZW's class has passed his exam. Mickey Mackay was the lucky member in the last A.O.C.P. exam. Rick and Bill have now received the call signs of 4ZWL and 4ZWG. Rick 4ZWL is at present on holidays in Brisbane and from what I hear he might need a three-ton truck to take back gear from the big smoke.

Bazil 4ZW has been on the sick list and has been recovering on holidays spent at the Barron River. Let's hope the holiday did you a lot of good, Bazil.

A sad note has crept into this month's news. You will all remember the silent key of Andy 4BW. Well, as a mark of respect, the people of Mareeba had a collection taken up to create some sort of memorial to Andy. Now stands in the local hospital a water cooler with a small plate attached explaining the significance of it as a mark of respect to Andy. A touching gesture indeed.

The modern s.w.l. is better set up than the average Amateur. As an indication, S.w.l. Afton, at Atherton, uses a Hammarlund HQ170 fed into a Mosley beam on top of a 50 ft. tower. Arthur 4SM insists that he is 72 years young, and is still going strong. After daily contacts with 4ZN he spends his time sawing wood, fixing cars, tractors, and radio sets. 73, 4JE.

NORTH QUEENSLAND

Well chaps, 4RW, who looks after the notes for North Queensland, has departed on a world tour and in his absence I will endeavour to keep you posted on the doings of the Ham fraternity up here. The weather has been extremely warm and makes me feel very legarthic. But I can still raise enough energy to turn a knob and hear what is going on.

Bob 4MF is muttering dark threats against a certain Italian gentleman. It seems that Bob has one of his rx's and said rx drifts a bit. Bob is reading all that he can about a rx called an S100. Tthe other member of the condenser twins, to wit Frank 4PF, has finally finished the set to end all sets. This rx is said to have everything that opens and shuts. Coil switching is by turret, and it looks very nice ineed.

Ted 4EG has gone s.s.b. and from what I hear it is the goods. Although I do believe that his 813 took a dim view of s.s.b. and promptly went on the blink. Nick 4WT has been posted to Richmond. Dropped in to see me on his way south. Judging by the way he took off (he drives his like he does his Linc Bomber) it won't take him long to reach Sydney. Another Townsville Ham, 4LU, has also been posted to Richmond. Nick has been allowed to sit in the driver's seat of his planes again, and apart from the fact that he will be flying cargo planes, he is very happy about the whole deal.

Joe 4OJ was very active on c.w. for a while and ran up an impressive string of countries. At the present time he is busy settling in a new QTH and is hoping to be on with low power soon. Ross 4RO has an all-band rig finished and I am told that it looks very nice. Is having a bit of modulator trouble, although it seemed all right on the once occasion that I heard it. The Z boys here are very inactive, so I cannot say anything about them.

George 4GS is building a new rx and has all the bits and pieces to build a rig, and is sure that he will have it all going by Xmas. Didn't mention which Xmas though! Frank 4CW is very active on 20 and 40 mx with a converted AMT150 and a cubical quad. Doc 4DK is still inactive, but as I have recently moved QTH from almost next door to Doc, he may get back on again. I do believe that he is thinking of patronising an Italian gent and obtaining a complete tx and rx.

Your scribe has shifted QTH and now has plenty of room to put up aerials. Apart from intermittent power leaks, the new QTH seems better than the last one. Should have my quad up again this coming week-end, and I'll be able to join the merry throng chasing DX again.

A certain American gent in Townsville has a 250-watt s.s.b. rig and rx to match in his car. He is not a Ham, but that doesn't stop the Townsville gang from drooling over this very nice piece of equipment. I feel sure it wouldn't take them very long to get it on the Ham bands.

Well that's the lot for this issue chaps, so I'll wish you Merry Xmas and all the DX round the place for 1962.—4UX.

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SOUTH AUSTRALIA

The monthly general meeting of the VK5 Division was held this month in the club rooms to the usual capacity house, and in the absence of our usual Chairman, John 5JC, owing to his not feeling too well, the meeting was opened by the acting chairman, Phil 5NN. The guest speaker for the night was Bob 5PU, who took for his subject "Crystal Filters and Crystal Oscillators". Now at this point in these notes I usually try and give a potted version of the lecture, no not potty, potted, but our chairman had taken me aside and with the usual respect he gives my grey hair and portly figure, said politely, "Listen mug, this lecture will be sent to "A.R." (We hope!—Ed.) and therefore there will be no need to use it as padding to make your usual two-page opening in the notes of the meeting." So, in view of this request, which is in itself an order, I will content myself with saying that Bob has given many lectures to the VK5 meetings, and as he possesses that happy knack of catering for the landed gentry as well as the peasants, like myself, this particular lecture was equal to, if not better, than any of his previous efforts. The vote of thanks was ably proposed by that doyen of the v.h.f's., Al 5ZCR, in a few and well-chosen words, and the applause which followed conveyed more than mere words of mine could ever do so.

Smoke-oh followed, and at the same time QSL cards were distributed by George 5RX. and then the few slow-coaches who left their exit a bit late were trapped for the business session which followed. Very little business, Federal or Divisional, or otherwise, came up, although Keith 5WI-5KH did give notice of motion to the effect that a certain sum of money, consistent with the finances of the Division, should be allocated toward a building fund for a proposed club room. This will be discussed at length at the January general meeting, which gives a couple of months for everybody to digest this important notice of motion. Several agenda items were read out, but not discussed, and the meeting ended at 10.30 p.m. The accuracy of this report on the meeting is accurate to plus or minus 100 per cent., the reason being that I was unavoidably absent, probably the reason for such a quiet meeting.

Jack 5JS heard on 14 Mc. with c.w. signals loud and clear. He called several CQs at varying speeds and the final one was quite expressive as to his feelings on the band conditions.

Despite any rumors to the contrary, the University of Adelaide Radio Club has not entirely ceased to function. The club goes into hibernation at the beginning of the third term and proves itself by the final exam results, and with this in view, their silence on the air is self-explanatory. However, one or two of the members, those of weak morals and a fine disregard for final exams., made a few sporadic raids on the DX bands and in the process secured W.A.C. and a host of DX loggings. Jeff 5NQ has lured Ian 5ZDM into the hands of Morse and these two are probably the most active, although the addition of 811s to the modulator has increased 7 Mc. A3 activity.

The club's long-awaited QSL cards have arrived from the printer and the club is prepared, and I quote, "to despatch, on receipt of a report and a bottle of beer for the operator, a 'Monastral' blue QSL card complete with a homespun homily from the E.E. Faculty."

As a threat and possible opposition to the above-mentioned club, rumor has it that the S.A. Institute of Technology (School of Mines to you) Radio Club has been heard on the air recently with c.w., causing the skeleton of the R.I. in the Uni. lift well to rattle perceptibly.

Quite a deal of money could have changed hands in VK5 last month over a local court case in which a tow truck owner was charged with using a wireless receiver capable of receiving the v.h.f. frequencies in which the police tx operated. All the "experts" and the "non-experts" went off into hysterics when they read the charge in the newspaper, and as far as they were concerned, the tow truck owner was sitting pretty. Arguments waxed strong and heated, and eventually an opinion was sought from the right sources, the outcome of which only caused the said arguments to increase in intensity. Anyway, the case eventually came to an end with the tow truck owner being found guilty, fined, and his v.h.f. rx being confiscated. Which only goes to prove how wrong one can be through the years, and how near many of us have come at times to being hauled into the court. I shudder when I think of it, true as true I do!!

Roy 5DA—"Buck to you—has again been on the sick list, but latest reports are re-assuring. Strangely enough my information came from a VK7, "Roop" 7RM to be exact, who is at the moment of writing still visiting our fair State. As an ex-VK5 (5RM) he has been visiting all of his old buddies and thus found out about Buck when he called on him at the A.B.C. As a matter of interest, very few are aware that 7RM's interest in radio goes back as far as working with Marconi on his yacht Electra, when it was in the New York harbour, and "Roop", as an employee of R.C.A., was sent down to the yacht to assist Marconi in any way desired.

Bill 5XB recently returned from an enjoyable sojourn in VK6. He took a mobile rig with him on his holiday and although he contacted Buck 5DA from Nundroo, where he spent a night, he was not successful in contacting any VK5s from VK6 itself.

Have you had a gander at the techniques being employed by the VK4 scribes to get sweet with Ye Ed.? "They have done it again, etc., etc." "The Sunshine State" etc., etc. I know what would happen to me if I tried it. Fancy me trying on "VK5, the moonlight State." "They have done it again, Pansy's ramblings to be enlarged." Oh yeah!! However, credit where credit is due, I thought that the write-up by 4PJ in the August "A.R." was one out of the box, although he did say Queensland (The Sunshine State) Division's Annual Convention. Nevertheless, he gets the Oscar for 1961. Oh, and by the way, if that hint from the Cairns scribe re the local P.O., opening with "S.A. please note," is fair dinkum, then I warn him that my blood pressure is rising and I am quite prepared to take on VK4 as well as VK2! (Let fighting season commence.—Ed.)

Congratulations go this month to John 5ZC who announced to a waiting world that he had become engaged. Despite intense listening to the local gossip on my part I have not been able to dig up much information on the

matter, but I have discovered that he has his eyes on Aldgate for a QTH, his bundle of charm is named Beth, her uncle is a Radio Amateur (his call I do not know), and last but not least, in view of his reported appetite, he has not included a kitchen in the plans of the proposed domicile, but is settling for a field kitchen!

Peter 5FM came along to the meeting, and is in the midst of setting up a tower and a quad. Dave 5DS—Doctor Mac to you—was bemoaning the loss of his 7 Mc. antenna, plus one of his ground planes, in the big blow this last month. It isn't "Donald, where's your troosers" these days, it's Davie "where's your aerials?"

Joe 5JO, he who is newly married, and, incidentally, looking very well on it, is busy painting his house preparatory to carrying his bride over the threshold, and therefore is not very active on the air at the moment. Al 5MF noticed walking down one of our main streets at a very fast clip, minus hat and coat, and perspiring freely. I shadowed him for a block in the hope that I would find out just what was doing, but the pace was too fast for me. My last glimpse of him was as they put me in the ambulance! Frank 5MZ still in one piece, wonders will never cease, was noticed at a late hour recently coming home from a 21st birthday party, complete with a billy and a plastic bag full of cake; what a man!

Doc 5MD was on the sick list at the meeting night and therefore no minutes of the past meeting was to hand. No details available, and the wall is too high for me to snoop over! Ian 5QX, late of Elizabeth, heard from 5WC at Woomera on the Sunday morning 5WI call-back. John 5JC, whom I mentioned was not at the meeting to take the chair, tells me that he has had the uncle of all carbuncles. When I asked him if he was eating his meals off the mantlepiece, he became quite common and coarse, informing me in no uncertain manner that it was on his leg.

Luke 5LL is delving in the realms of tape recording with the idea of sending a tape to W land. So far he has been rubbing himself out and then putting himself back on the track with monotonous regularity. At least it has been highly educational for him, he now knows the difference between a single and double track machine. Doug 5DW has returned fit and enthuiastic about portable Amateur Radio from his recent sojourn at Lake Bonney. He told me in one of the contacts that I had with him that he supposed when he returned home he would lose his new-found enthusiasm for radio. How wrong can he be?

Now everybody in VK5 will tell you that we have a Divisional journal that comes out at frequent intervals. Everybody will tell you that it is a good one and that they read every word printed in it. Also, that Brian 5CA, who edits it, should be very proud of it, and yet every now and then up bobs the excuse that they have never noticed any reference to subscriptions being due to the Division. For the past couple of years, in an attempt to save the members postage money, the notice of annual subscription being due has been included in the journal which comes out round about February or March. Bearing this in mind, please read every page carefully, and please cough up your subs when notified in the journal. I thang-you. I thangyou!

Just in case by now there are any of my readers left who might feel like arguing the point or even betting on the accuracy of a previous paragraph on the tow truck owner in VK5, who was convicted for using a v.h.f. rx, I see by the paper this week that another conviction was recorded against a person for having maintained an appliance for the purposes of receiving wireless telegraphy messages. He admitted having affixed a converter to a broadcast rx which could then be used to listen in to a police message. An order was made by the magistrate to condemn the radio set, at the discretion of the Attorney-General. Incidentally, he was fined £10 with £4/2/0 costs, which is expensive listening in anyone's language. Still want to argue?

Well, here we are again. The old year on the way out and the new year on the way in. On behalf of the Council and members of the VK5 Division, may I extend to all Councils and members of all other Divisions, a Happy and Prosperous New Year. To those who have agreed with me, and even to those who have agreed to differ with me, I say, keep up the good work in 1962, and either I will convert you, or I will be converted by you. However always remember that whichever way the ball bounces, it must be made to bounce to the credit of our grand old hobby Amateur Radio.

Now for the payoff—VK4 please note. To that handsome, fairminded, astute, clearheaded man of letters, my palsy-walsy the Editor, to say nothing of that hardworking, clearsighted, handsome specimens of manhood, the Publications Committee, may I thank you all for putting up with my humble efforts this year, and if you all could see your way clear to tack another nought on to my present salary, you would all continue to rise in my estimation. If that does not prove that I can crawl as well as VK4, then I will give the game away! 73, 5PS (PanSy to you). (Salary is now doubled.—Ed.)

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WESTERN AUSTRALIA

The highlight of the October general meeting was the lecture given on the Mercury Project and Muchea tracking station by Mr. Jack Walker at the monthly meeting. This was most interesting and very ably given. Mr. Walker knows his subject backwards and seldom referred to notes during his hour and a half talk. It was greatly appreciated by a gathering of some 40 members.

Another very successful event for October was the VK6 section of the Scout Jamboree-on-the-Air, some 20 Amateurs taking part.

Conditions on 40 mx for October have been not so good and have caused some disorganisation of the Sunday news session. This is a pity as the W1 news is becoming very popular on Sunday morning, judging by the silence on the remainder of the band at that time. This is partly due to the very interesting technical talks by 6GH after the news. Reports come in from Albany in the south to Carnarvon in the north. Les 6LF in the north puts a very potent signal into this QTH with his grid modulated tx. Have not heard 6AH lately, but he is on very low power and many miles away.—some 500 miles airline.

6WL is still in bother with t.v.i. and deserves much credit for the way he is trying to overcome it. Heard 6BU from his new QTH. I understand he is contemplating an antenna farm in his backyard. Good hunting Jack. 6PH put in a good effort for the Scouts with his crow's nest (sorry, cubical quad) in spite of interference from Wolfgang. 6XO is another who has been overworked or something directing rocket launchings at Katanning. We understand he worked himself to the stage when he could no longer take an interest in proceedings, but was aided by "Ali Baba"—or should I say hindered. VR2EB, ex-6CO, was heard here one night trying to contact VK6 on c.w. but all he could manage was VK3XL. Bob 6BE is back to his usual signal on 80 mx after shaking the moths out of the rig. The tx did not like the new QTH, Bob?

Twenty mx has been open quite often lately and 6CP, 6DR and others have been heard DXing. 73, 6ZCK, per 6LS.

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TASMANIA

November 1961 was really a very busy month from the point of view of our hobby. Conditions for the "CQ" Contest on both 3.5 and 7 Mc. for the C.w. Section were very good indeed and much fun and enjoyment was had by those stations participating in the Contest. Then, the visit of Arch 5XK to Norfolk Island sparked off yet further activity, and it was very interesting indeed to listen on my frequency immediately afer completing a most enjoyable QSO with Arch, just to see how many Ws could be crammed into ten kilocycles.

The V.h.f. Group also undertook some most interesting work on the 144 Mc. band on the 19th November from the top of Mount Wellington. Several VK3 stations were worked, over and above the northern VK7s. Mature consideration of the results of this effort could lead to advances in the art on this band.

Bob 7OM has been adding new experiences to his most interesting life, but the latest experience is one which most of us would shy clear of, namely, a shipwreck, or virtually so. Bob was on board the Sumatra when it went aground about the middle of November. Bob is as cheery as ever, and none the worse for his experience.

Snowy 7CH and Ken 7KA have been afloat also during the month and from all accounts their respective enjoyments were considerable. Ken is also a very keen Tamaar class yachtsman each week-end these days and we wish him increasing luck with his new-found hobby.

The North-West Coast boys operated 7WI/P very successfully from the Devonport Science Exhibition late in the month, and I know I express their gratitude to those Amateurs who so willingly co-operated by providing contacts for them. I have heard rumours that several of the v.h.f. boys are hard at work studying the code, with a view to sitting for their full tickets in the near future. Best of luck chaps, you will find that c.w. will materially help your hobby on the bands in which you show so much interest.

Brian 7ZBE has been in northern Tasmania for three weeks at the direction of his employer, and no doubt he operated on the v.h.f. bands while up there and had interesting contacts with the locals and beyond up there. Ted 7EJ was in Melbourne, on business, for a few days early in December.

In closing, I wish you all the very best for the holidays season and for the new year of 1962. 73, 7ZZ.

NORTH WESTERN ZONE

Sorry chaps I missed out last month, but was away on holidays and too relaxed to think about it. Took a portable away with me and when I took it out to operate, found the rough roads had shaken about six connections loose. Gave it away.

The Amateur station operating from the Scientific Exhibition at Devonport was quite a success. Although only working a No. 22 set, some good contacts were made and interest aroused. The usual competition was had from surrounding exhibits including film projectors, toy trains, closed circuit t.v., etc., but we copied OK. Thanks to the chaps who helped out by calling us.

Spies tell me that our worthy President is wasting a deal of valuable time in playing golf. Could knock up a s.s.b. job in the time taken for a couple of 18 holes. Which brings to mind a very neat looking effort at the shack of 7XL, which I am assured will some day be a s.s.b. rig. I wouldn't know.

N.W. Zone stations have been very quiet lately. It leaves me with little to talk about. Thought I heard 7DA active for a few seconds recently. 7FT also appeared for a brief one. To add to the confusion, 7RN appeared out of the blue one night. It's most disturbing.

The last social meeting was an organised film show. Somre movies were shown, but the show was completely stolen by a combination of colour slides with commentary on tape, taken on a recent world tour by George 7GC. The photography, coupled with the most interesting descriptions and comments, spoke volumes for the thought and skill put into the project. Many thanks George for your thought and the use of slides, etc. We wish you every success in your new QTH.

Haven't seen the quad out at Pumpkin Farm lately. Hope the wind has not devastated it. Wonder if Bob 7IL would be in our zone. Often hear you on Bob and may get you into the gossip column if I can arrange a spy on K.I.

Well chaps, trust that the New Year holds some pleasant surprises for you all, apart from frequency cuts. 73, 7MX.

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FT	3340	FT	4490	DC	5166.6	FT	5706	LP	6110	DC	6572.3	FT	7425
DC	3440	DC	4495	DC	5170	DC	5710	LP	6130	LP	6640	FT	7440
FT	3690	FT	4535	FT	5180	FT	5740	LP	6210	FT	6650	FT	7600
FT	3828	FT	4540	FT	5205	FT	5744	FT	6225	DC	6700	LP	7890
DC	3830	FT	4549	DC	5210	DC	5770	FT	6235	DC	6750	DC	7890
FT	3830	DC	4660	FT	5237.5	FT	5773.3	DC	6240	DC	6783.3	DC	7925
FT	3885	FT	4672.76	DC	5250	FT	5775	LP	6243.3	FT	6815	LP	7930
DC	3930	FT	4676	DC	5285	FT	5780	FT	6265	FT	6840	DC	7962.8
DC	3970	FT	4695	FT	5295	FT	5782	FT	6300	FT	6890	DC	7810
DC	3995	FT	4730	LP	5300	DC	5810	DC	6350	FT	6935	DC	8036.2
FT	4010	FT	4735	FT	5360	FT	5815	FT	6355	LP	7010	DC	8171.25
FT	4025	FT	4750	FT	5365	FT	5852.5	FT	6375	LP	7120	DC	8176.9
FT	4065	DC	4750	FT	5397	FT	5855	DC	6420	LP	7171	DC	8182.5
FT	4080	LP	4765	DC	5410	FT	5897.5	FT	6462.5	FT	7175	DC	8460
FT	4180	FT	4780	FT	5437	FT	5910	LP	6470	FT	7200	DC	8469.23
FT	4235	FT	4815	DC	5515	LP	5910	FT	6515	LP	7205	DC	8645.45
FT	4280	FT	4840	DC	5530	FT	5920	LP	6522.9	LP	7270	DC	8488
FT	4295	FT	4852	FT	5551.5	DC	5950	FT	6535	LP	7350	DC	8525
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DC	8013	DC	8015
DC	8013.5	DC	8015.5

144 Mc. Ham Band (continued):

DC	8016	DC	8022.5	DC	8029.5
DC	8016.5	DC	8023	DC	8030
DC	8017	DC	8023.5	DC	8030.5
DC	8017.5	DC	8024	DC	8031
DC	8018	DC	8024.5	DC	8031.5
DC	8018.5	DC	8025	DC	8032
DC	8019	DC	8025.5	DC	8032.5
DC	8019.5	DC	8026	DC	8033
DC	8020	DC	8026.5	DC	8033.5
DC	8020.5	DC	8027	DC	8034
DC	8021	DC	8027.5	DC	8034.5
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Resistance: 0-60K ohms; 0-6 meg.
Capacity: 0.01-0.3 μF. (at a.c. 5v.); 0.0001 - 0.01 μF. (at a.c. 250v.).
Decibel: minus 20 db. plus 22 db.
Output range 0-10, 50, 100, 500, and 1,000.
Battery used: UM3 1.5v. 1 piece.
Dimensions: 3¼ x 4½ x 1-1/8 in.

Complete with internal battery, testing leads and prods.

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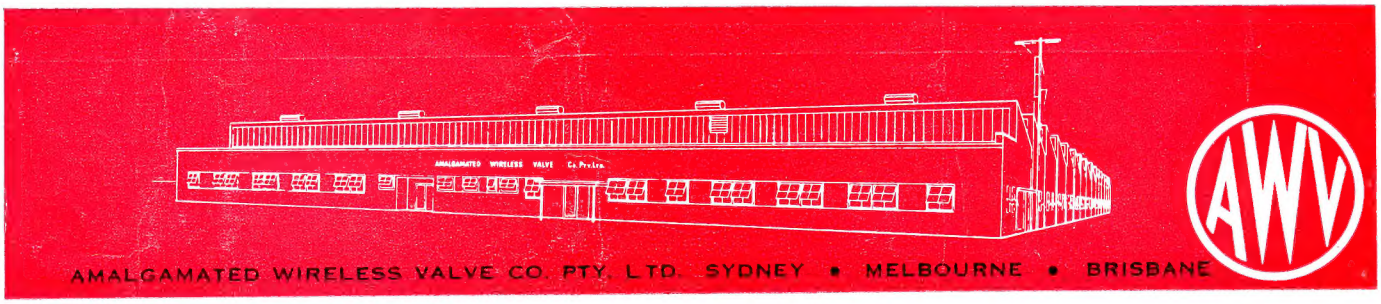
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